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ABSTRACT

This Washington State manual explains the full spectrum of activities involved in the planning, design, and construction of successful and cost-effective projects for school facilities. Chapters cover advance planning; financing; site selection; educational specifications; consultant selection; school design; bidding, evaluation, and award of construction contracts; the construction, closeout, acceptance, and occupancy process; and planned facility management. Included is an explanation of the procedures school districts must follow to apply for and receive state funds for school planning, design, and construction. Appendices contain a glossary and addresses for associations and state agencies involved in school facility planning, construction, and finance. (GR)

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ED 447 673

School Facilities Manual

Revised Fourth Edition

EF 005 798

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Dr. Terry Bergeson
State Superintendent of
Public Instruction

March 2000

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School Facilities Manual

Revised Fourth Edition

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State Superintendent of Public Instruction

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Budget and School Business Services

Michael Currie, Director
School Facilities and Organization

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March 2000

MANUAL ORGANIZATION

Chapter 1	Introduction
Chapter 2	State Assistance/Forms
Chapter 3	Advance Planning
Chapter 4	Financing
Chapter 5	Site Selection
Chapter 6	Educational Specifications
Chapter 7	Consultant Selection
Chapter 8	Design
Chapter 9	Bidding, Evaluation, and Award of Construction Contract
Chapter 10	Construction, Closeout, Acceptance, and Occupancy
Chapter 11	Planned Facility Management
Appendix A	Glossary
Appendix B	Addresses

Related Information: *

- Safer Schools/Goals and Strategies
- Nonstructural Earthquake Hazards Manual (revised 2000)
- Radon Manual
- Summary—School Indoor Air Quality Best Management Practices

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*This revised edition did not consider changes to the 4th edition's related information. These original inserts are still relevant and considered to still be a portion of this revised edition.

Chapter 1

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Section 101 – Purpose

Is your school district ready to embark upon a school facility building program?

Have you already started on such a program and are you uncertain of what to do and when to do it?

Do you know what resources are available to help you in planning, design, and construction?

How do you find appropriate consultants and what should you expect from them?

Who are all the people that normally participate in such planning, design, and construction?

The purpose of this manual is to explain the full spectrum of activities involved in the planning, design, and construction of school facilities and to increase an awareness of all activities that comprise the total effort necessary for successful, cost-effective school projects.

The manual is also intended to provide a guide to the services offered by the Office of Superintendent of Public Instruction (OSPI) and to the procedures required for obtaining state assistance in planning, design, and construction of school facilities.

This publication is a revision of the Fourth Edition of the *School Facilities Manual* published in 1995.

In conformance with the rules and regulations as prescribed in this manual, school districts submit applications to OSPI for state assistance in providing school facilities. Recommendations regarding action on the applications are submitted to the State Board of Education (SBE) by OSPI. (RCW 28A.525.050)

It is the duty of the OSPI to prepare and revise a manual on the planning, design, maintenance, and operation of school facilities. (RCW 28A.525.060)

Section 102 – Terms of Usage

The following terms are used throughout the manual.

"District" refers to the local school district.

"OSPI" refers to the Office of Superintendent of Public Instruction.

"RCW" refers to the Revised Code of Washington.

"SBE" refers to the State Board of Education.

"Shall" or **"must"** indicates a mandatory or legal requirement.

"WAC" refers to the Washington Administrative Code.

Section 103 – Scope

The *School Facilities Manual* outlines the process of planning, design, construction, maintenance, and operation of school facilities in accordance with the state school construction program. Table 1.1 illustrates the process and the general phases.

For each phase of the process, the chapters identify and define the participants and their responsibilities, the major activities, and specific requirements. The matrix (Exhibit 1A) at the end of Chapter 1 illustrates the relationships of activities and participants involved in the process. The relevant section of the matrix is reproduced at the end of each subsequent chapter. The following is a synopsis of each chapter.

Chapter 2 – State Assistance/Forms

State funds are available to reimburse school districts for costs incurred for:

1. Conducting the study and survey.
2. Developing educational specifications.
3. Planning, designing, and constructing school facilities.
4. Preparing value engineering studies.
5. Preparing energy conservation reports.
6. Conducting inspections and tests during construction.

Chapter 2 explains the process that school districts must follow to apply for and receive state funds for school planning, design, and construction. The exhibits at the end of Chapter 2 contain examples of the D-forms used in the process.

Chapter 3 – Advance Planning

Anticipating the needs of the district and providing the necessary facilities to meet these needs in a timely manner are among the more significant duties of a district's board of directors and, therefore, an advance planning process must be implemented. In the state assistance for school construction program, the resulting document is known as the "study and survey."

Chapter 4 – Financing

Local school districts may obtain funds for financing capital improvements from several sources. Chapter 4 describes the various funding sources and the methods and procedures for financing school facilities.

Chapter 5 – Site Selection

Site selection and development are significant aspects of planning a school facility. Chapter 5 describes the selection procedure, criteria for evaluating sites, the various governmental agencies involved in site review and approval, and considerations in acquiring the site.

Chapter 6 – Educational Specifications

The educational specification process focuses on a school district's development of program requirements for individual structures. The purpose of the educational specification is to define and communicate to the architect/engineer the district's goals and requirements for what a given facility should be. The educational specifications should reflect the goals and objectives set forth in the district's study and survey document. Chapter 6 describes the characteristics and components of educational specifications.

Chapter 7 – Consultant Selection

The school board and/or the district administrators are responsible for selecting the building design team. Chapter 7 discusses the team composition, process of selecting the architect/engineer and other participating professionals, contractual relationships, and state participation in the architectural and engineering fees.

Chapter 8 – Design

The design process incorporates all prior planning, educational specifications, site studies, codes, regulations, and financial parameters into written and graphic documents which form the basis for constructing the school. Chapter 8 describes the design process and the phases of developing schematic, design development, and construction documents preparatory to calling for bids on the project. The needs for cost estimating, life cycle costing, and value engineering are also described.

Chapter 9 – Bidding, Evaluation, and Award of Construction Contract

When the cost of any public building or improvement equals or exceeds the sum of $50,000, the school district shall prepare plans and specifications for such work and give public notification of the intention to receive bids for the work. Chapter 9 describes the procedures and requirements for bidding school projects, evaluating bidders and their proposals, and awarding construction contracts.

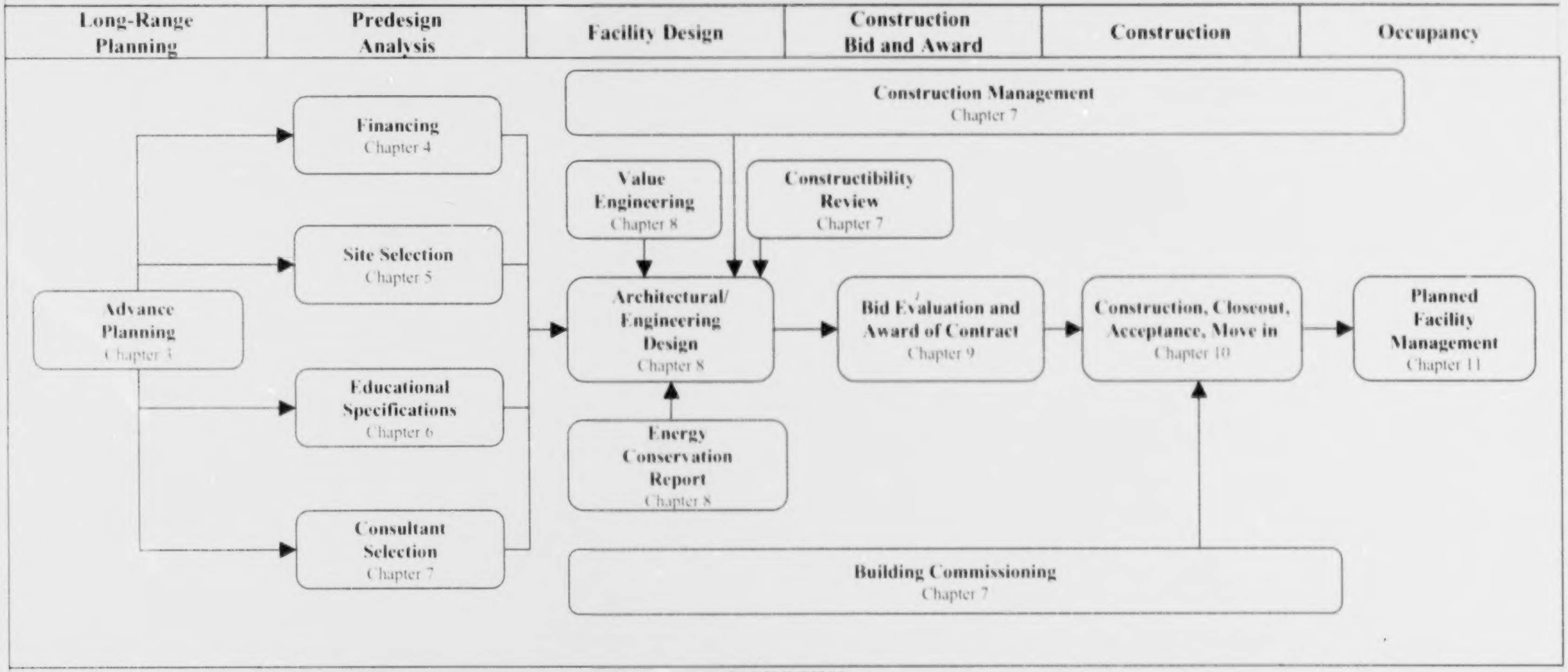
Chapter 10 – Construction, Closeout, Acceptance, and Occupancy

The construction process involves many participants in the management and administration of the construction contract. Chapter 10 describes the activities and responsibilities of all participants during the construction of the project and its occupancy.

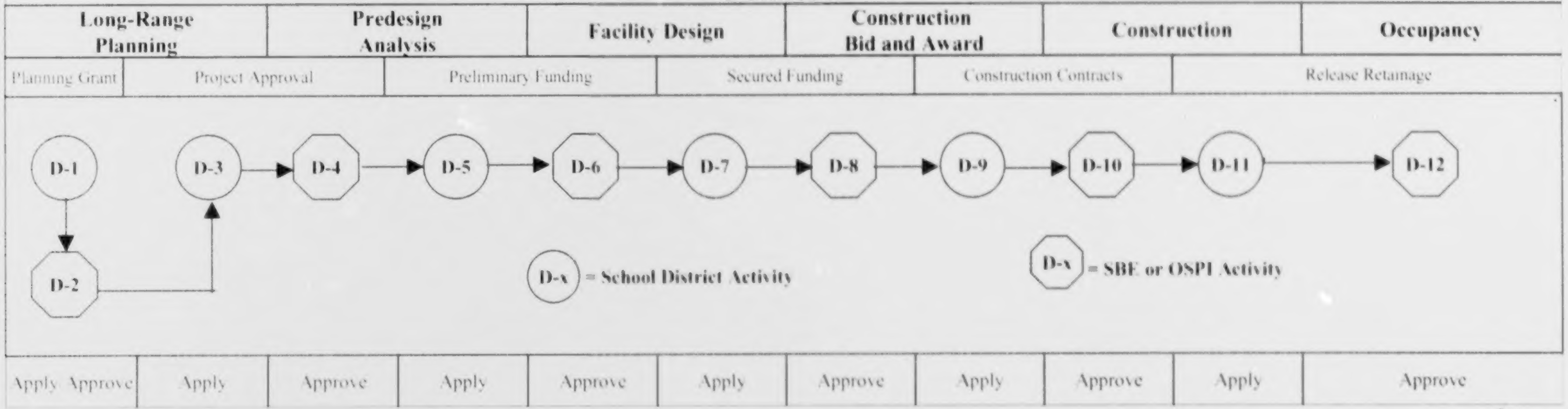
Chapter 11 – Planned Facility Management

After construction of a school facility, the school district is responsible for the operation and maintenance of this facility. Chapter 11 provides guidelines and demonstrates methods that can provide effective planned facility management.

THE SCHOOL FACILITIES DEVELOPMENT PROCESS PHASES



D-PROCESS



Section 104 – History and Distribution of the Manual

History

In 1978 the School Facilities Cost Advisory Board was appointed to guide and assist the cost stabilization program staff in developing methods and ways of meeting the goals of the state assistance program.

This manual was originally created as part of the activities of the advisory board through the work of its manual subcommittee. It has been revised and updated periodically.

The School Facilities Advisory Board now advises and assists OSPI staff and the SBE on a variety of issues related to school construction.

The advisory board consists of representatives of many boards, organizations, professions, construction trades, planners, maintenance officials, and others involved in planning, design, and construction of school plant facilities.

Distribution

This manual is intended for distribution to school district officials and employees, design professionals, state officials, county officials, city officials, and others interested in planning, designing, constructing, maintaining, and operating school facilities.

For information concerning additional copies and costs, please contact the School Facilities and Organization section. For the mailing and Web site addresses, please refer to Appendix B.

Section 105 – Participants

Washington State Board of Education

The SBE is comprised of one member from each congressional district of the state, elected by the members of the boards of directors of school districts thereof, and one member at large elected by the members of the boards of directors of all approved private schools. Each member of the SBE is elected for a term of four years. The Superintendent of Public Instruction is an ex officio member and the chief executive officer of the SBE.

The SBE has the powers and duties to prescribe rules and regulations governing the administration, control, terms, conditions, and disbursements of allotments to school districts to assist them in providing school plant facilities. These rules and regulations can be found in the Washington Administrative Code (chapters 180-25, 180-26, 180-27, 180-29, 180-31, 180-32, and 180-33 WAC). They are available on the Facilities (www.k12.wa.us/facilities) or the Code Reviser Web sites (www.slc.leg.wa.gov) and in the *Common School Manual.*

Washington State Superintendent of Public Instruction

The Superintendent of Public Instruction is a constitutionally authorized, nonpartisan, elected executive officer of the State of Washington. The State Superintendent is elected for a term of four years.

The School Facilities and Organization Section of OSPI

The School Facilities and Organization section of OSPI administers the rules and regulations as adopted by the SBE regarding school construction.

Technical assistance in facilities planning and obtaining financial aid for construction is available from School Facilities and Organization. Regional facility coordinators are an extension of the section. They operate as primary point of contact for school districts in the process of developing capital programs and gaining financial assistance from the state to expand or modernize school facilities. Regional coordinators are available to serve districts and consultants with a variety of technical assistance. This technical assistance includes the following.

1. Consulting with and advising school administrators, boards of directors, design professionals, and others on matters related to:
    - State Board of Education rules relating to school construction and modernization projects.
    - Building condition analysis.
    - Development of state studies and surveys.
    - Architect/engineer and construction manager selection.
    - Value engineering and constructability reviews during design.
    - Building commissioning.
    - Construction administration.
    - Maintenance issues.
    - Data verification to allow equitable administration of the SBE priority system.
2. Reviewing applications for long-range planning grants for studies of school district building needs and preparing recommendations, as appropriate, for the SBE.
3. Reviewing applications for and other documents pertinent to state financial assistance in school facility construction.
4. Determining amounts of financial participation and state fund allocations for school facility construction for the SBE.

Educational Service Districts

The State of Washington is divided into nine educational service districts (ESDs) that provide cooperative and informational services to local school districts.

1

School Districts

A school district is a territory under the jurisdiction of a single governing board designated and referred to as the board of directors. (RCW 28A.315.020)

1. The board of directors of the school district is the primary agency with the responsibility and authority to determine the type of school facilities it desires to construct for the children of its district. It is also the contracting agent in procuring the services of consultants, design professionals, and contractors to assist in construction of such facilities.
2. School district administration, faculty, staff, and students play a major role in planning school facilities consistent with their specific skills and knowledge.

Citizens

There is a great need to encourage wide involvement of citizens in activities relating to planning school facilities.

Other Governmental Agencies

Other state and local agencies such as health departments, fire marshals, building authorities, zoning boards, etc., have specific roles in planning school facilities inasmuch as their authority may apply.

Consultants

The process of developing a school facility is demanding and time-consuming and requires specialized expertise not commonly found within a school district's staff. Even if internal staff expertise is available, their normal operational responsibilities often restrict their ability to deal with the development of a complex building project in an effective and/or timely basis. School districts typically look to independent consultants for the resources to fulfill their building project needs.

The planning, design, and construction of a school facility typically involves many of the following consultants:

1. Educational planning consultants to provide expertise in defining facility program needs, functions, and space requirements.
2. Financial planning consultants, bond counsel, and investment banking firms to structure bond issues, investments, and cash flow requirements.
3. Architectural and engineering design consultants and specialized sub-consultants, as needed, to provide design solutions to the school district's expressed needs within an agreed budget and schedule.
4. Project manager or construction program manager to provide leadership in meeting schedule, cost, and program objectives and to assist in project budgeting, scheduling, construction cost estimating, formulating design and construction strategies, and construction oversight.
5. Other specialized technical consultants as may be required, such as surveying, soils analysis, environmental analysis, value engineering, constructability reviews, building commissioning, and asbestos and hazardous material identification.

6. Construction contractor(s) to construct facilities in the manner designed within the established time schedule and cost.

The efforts of such a team of varied disciplines should have clearly defined responsibilities and authorities and should be coordinated continuously to avoid duplication of effort and to monitor work necessary for the total project. This coordination should be undertaken by a capable project manager, whether in-house or on a consulting basis.

Participants

Legend

■ Primary Responsibility for Action

□ Participation in Action

	Local					State							City/County								Consultants															
Activity	Citizens/Students	SD Board of Directors	SD Superintendent	SD Staff	SD Hazardous Materials Designated Person	State Board of Education	Superintendent of Public Instruction	Public Disclosure Commission	Energy Office	Department of Ecology	Labor and Industries	Electrical Inspector	Planning Officials	Building Officials	Fire Marshal	Public Works	Health Officials	Electrical Inspector	County Auditor	County Treasurer	Program Management	Financial Consultant	Bond Counsel	Legal Counsel	Real Estate Broker	Geotechnical Engineer	School Facility Planner	Land Surveyor	Educational Consultant	Construction Manager	Architect/Engineer	Value Engineering Team	Contractors	Testing Laboratories	Other	**Remarks**
Advance Planning (Chapter 3)																																				
1. Initiate Action (New or Review)			■																																	
2. Request Grant from SPI (Form D-1)			■																																	
3. Award of Planning Grant (Form D-2)						■																														
4. Assign Supplemental Funds as Required		■	□																																	
5. Form Study and Survey Team/Indoctrinate		□	■	□			□																													
6. Conduct Study and Survey Activities																																				
A. Community Analysis	□		■	□									□														□									
B. School Enrollment Study	□		■	□									□														□									
C. Educational Plan	□	■	□	□																							□									
D. Evaluate Existing Facilities	□		□	□	□									□	□	□	□	□													□					
E. Master Plan	□	■	□	□																							□									
F. Assessment of Financial Resources	□		■	□																□		□														
G. Building Condition Evaluation Form			■	□																											□					
H. Recommendations	□		■	□																																
I. Determination of Project Eligibility and Level of State Assistance							■																													
7. School Board Review and Approval	□	■	□	□																																
8. Submit Appl. for Project Approval (Form D-3)		■																																		
9. Project Review and Approval (Form D-4)						■	□																													
Financing (Chapter 4)																																				
10. Establish Capital Project Budget		□	■	□																	□	□					□				□					
11. Select Financing Plan		■	□	□																		□														
12. Prepare Bond Election Resolution			■	□																		□	□	□												
13. Organize Election Steering Committee	□							□																												
14. Adopt Bond Election Resolution		■																																		
15. Deliver Resolution to County Auditor			■																□																	
16. Conduct Bond Election	□	□	□	□															■		□															
17. Prepare Bond Resolution and Notice of Sale																							■													
18. Prepare Bond Prospectus																						■														
19. Sell Bonds/Closing		□																		□				■												
20. Schedule Cash Flow Requirements																					■															
21. Invest Bond Proceeds			■																	□		□														
Site Selection (Chapter 5)																																				
22. Assemble Site Selection Team			■	□																																
23. Site Selection Activities																																				
A. Identify Potential Sites			■	□																					□											
B. Examine and Evaluate Each Site			■	□																					□						□					
C. Ascertain Site Acquisition Costs			□	□																					■											
D. Identify Preferred Sites																																				
(1) Planning Agency Approval				□									■																							
(2) Health Department Approval				□													■																			
(3) Ecology Department Approval				□						■																■										State and Local
(4) Geotechnical Study				□																																If in Flood Plain
E. Select and Acquire Site		■	□																									■								
24. Survey Boundary and Topography				□																																

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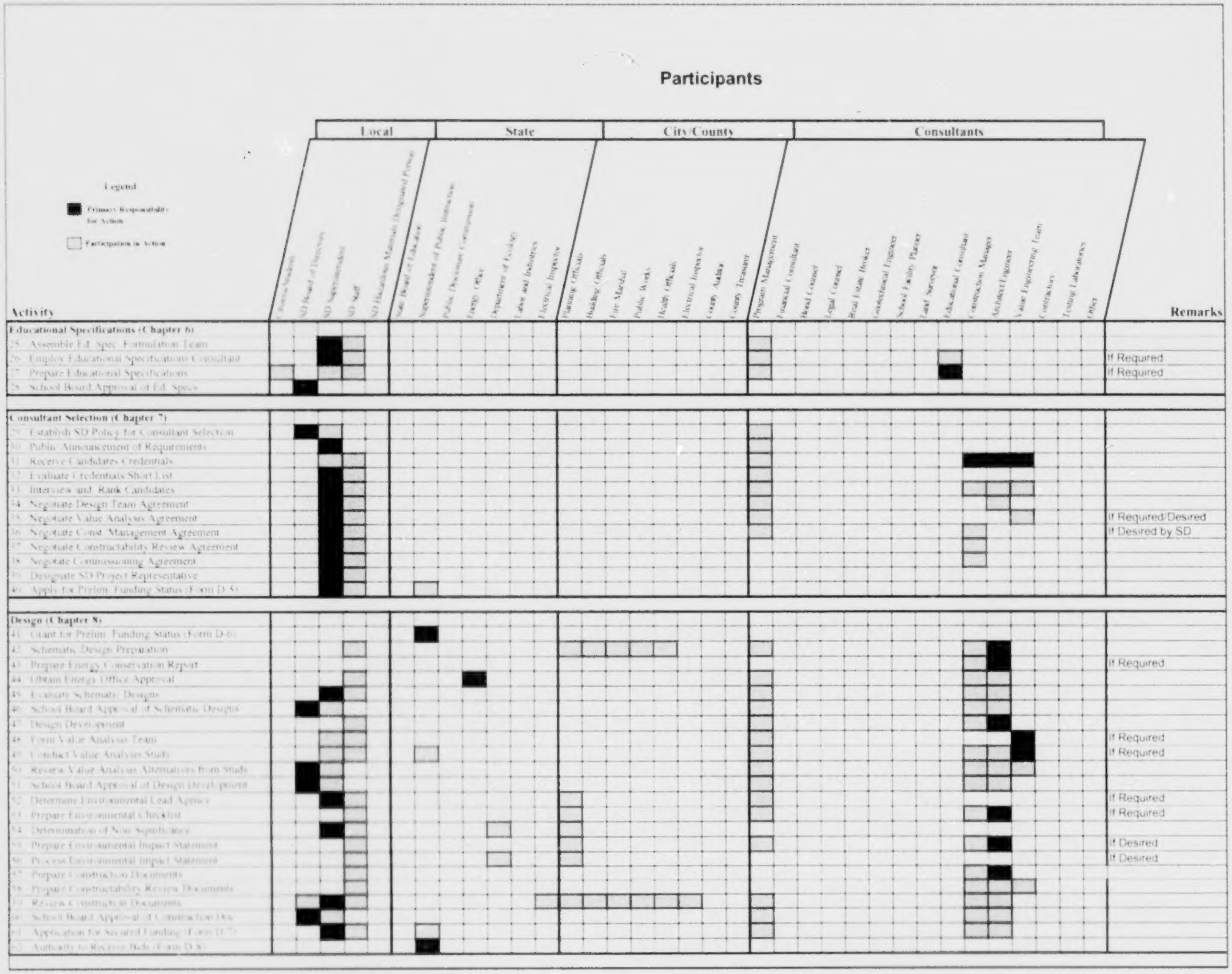

Participants

Legend

■ Primary Responsibility for Action

□ Participation in Action

Activity	Local					State							City/County								Consultants															Remarks
	Citizens/Students	SD Board of Directors	SD Superintendent	SD Staff	SD Hazardous Materials Designated Person	State Board of Education	Superintendent of Public Instruction	Public Disclosure Commission	Energy Office	Department of Ecology	Labor and Industries	Electrical Inspector	Planning Officials	Building Officials	Fire Marshal	Public Works	Health Officials	Electrical Inspector	County Auditor	County Treasurer	Program Management	Financial Consultant	Bond Counsel	Legal Counsel	Real Estate Broker	Geotechnical Engineer	School Facility Planner	Land Surveyor	Educational Consultant	Construction Manager	Architect/Engineer	Value Engineering Team	Contractors	Testing Laboratories	Other	
Educational Specifications (Chapter 6)																																				
25 Assemble Ed. Spec. Formulation Team			■	□																	□															
26 Employ Educational Specifications Consultant			■	□																	□								□							If Required
27 Prepare Educational Specifications	□		□	□																	□								■							If Required
28 School Board Approval of Ed. Specs		■																																		
Consultant Selection (Chapter 7)																																				
29 Establish SD Policy for Consultant Selection		■	□																		□															
30 Public Announcement of Requirements			■																		□															
31 Receive Candidates Credentials			□	□																	□									■	■	■				
32 Evaluate Credentials/Short List			■	□																	□															
33 Interview and Rank Candidates			■	□																	□									□	□	□				
34 Negotiate Design Team Agreement			■	□																	□										□					
35 Negotiate Value Analysis Agreement			■	□																	□											□				If Required/Desired
36 Negotiate Const. Management Agreement			■	□																	□									□						If Desired by SD
37 Negotiate Constructability Review Agreement			■	□																										□						
38 Negotiate Commissioning Agreement			■	□																										□						
39 Designate SD Project Representative			■	□																																
40 Apply for Prelim. Funding Status (Form D-5)			■	□			□																													
Design (Chapter 8)																																				
41 Grant for Prelim. Funding Status (Form D-6)							■																													
42 Schematic Design Preparation				□									□	□	□	□	□				□									□	■					
43 Prepare Energy Conservation Report																														□	■					If Required
44 Obtain Energy Office Approval				□					■												□									□	□					
45 Evaluate Schematic Designs			■	□																	□									□	□					
46 School Board Approval of Schematic Designs		■	□																		□									□	□					
47 Design Development				□																	□									□	■					
48 Form Value Analysis Team			□	□																	□											■				If Required
49 Conduct Value Analysis Study			□	□			□														□									□	□	■				If Required
50 Review Value Analysis Alternatives from Study		■	□																		□									□	□	□				
51 School Board Approval of Design Development		■	□																		□									□	□					
52 Determine Environmental Lead Agency			■	□									□								□															If Required
53 Prepare Environmental Checklist				□									□								□									□	■					If Required
54 Determination of Non-Significance			■	□						□			□																							
55 Prepare Environmental Impact Statement				□									□								□									□	■					If Desired
56 Process Environmental Impact Statement				□						□			□																							If Desired
57 Prepare Construction Documents				□																										□	■					
58 Prepare Constructability Review Documents				□																										□	□	□				
59 Review Construction Documents	□		■	□								□	□	□	□	□	□	□			□									□	□					
60 School Board Approval of Construction Doc.		■	□																		□									□	□					
61 Application for Secured Funding (Form D-7)			■	□			□														□									□	□					
62 Authority to Receive Bids (Form D-8)							■																													

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Participants

Legend

■ Primary Responsibility for Action

□ Participation in Action

	Local					State							City/County								Consultants															
Activity	Citizens/Students	SD Board of Directors	SD Superintendent	SD Staff	SD Hazardous Materials Designated Person	State Board of Education	Superintendent of Public Instruction	Public Disclosure Commission	Energy Office	Department of Ecology	Labor and Industries	Electrical Inspector	Planning Officials	Building Officials	Fire Marshal	Public Works	Health Officials	Electrical Inspector	County Auditor	County Treasurer	Program Management	Financial Consultant	Bond Counsel	Legal Counsel	Real Estate Broker	Geotechnical Engineer	School Facility Planner	Land Surveyor	Educational Consultant	Construction Manager	Architect/Engineer	Value Engineering Team	Contractors	Testing Laboratories	Other	**Remarks**
Bidding, Evaluation and Award (Chapter 9)																																				
63 Advertise for Bids			■	□																	□			□							□					
64 Open Bids	□	■	□	□																	□			□							□					
65 Evaluate Bids and Bidders			■	□																	□			□							□					
66 Recommendation for Award		■	□																		□															
67 Application to Enter into Contracts (Form D-9)			■	□																	□												□			
68 Authorization to Sign Contracts (Form D-10)							■																													
69 Award Construction Contracts			■	□																	□			□												
Construction/Closeout Acceptance (Chapter 10)																																				
70 Organize Project Management Team			■	□																	□									□	□					
71 Contract for Spec. Inspection/Testing			■	□																	□									□	□			□		
72 Documents Required Prior to Construction				□																	□									■	□		□			
73 Construction and Cash Flow Schedules				□																	□									■	□		□			
74 Building and Other Permits				□										□							□									□			■			
75 Preconstruction Conference				□	□																□									■	□		□	□		
76 Prevailing Wage Statements											□																			□			■			
77 Affirmative Action Compliance				□																				□						□			■			
78 Insurance Bond Review				■																				□											□	(Insurance Carrier)
79 Construction Activities																																				
A. Construction Management				■																	□									■	□		□	□		
B. Periodic Observation of Work				□	□									□	□	□	□	□												□	■		□	□		
C. Job Progress Meetings				□																	□									■	□		□			
80 Progress Payments and Retainage				■			□													□	□									□	□		□			
81 Change Orders/Field Orders				□			□							□																■	□		□			
82 Substantial Completion			□	□																										■	□		□			
83 Final Completion and Acceptance																																				
A. Contractor Certification																																	■			
B. Final Inspection				□	□									□	□	□	□	□			□									■	□		□			
C. List of Unfinished Work (if any)				□																										□	■					
D. Reinspection (as required)				□	□									□	□	□	□	□												■	□		□			
E. Closeout Submittals				□																										□	□		■			
F. Final Adjustment of Accounts				□			□														□									□	□		■			
84 Building Commissioning				□																										□	□		□		■	
85 Final Application for Payment				□			□														□									□	□		■			
86 Final Certificate for Payment				□			□														□									■	□					
87 Design Team Certifications																					□									□	■					
88 School Board Resolution of Completion		■	□																																	
89 Final Payment (Less Retainage)			■				□													□	□															If Applies
90 Application for Release Retainage (Form D-11)			■	□			□																	□												If Applies
91 Release of Retainage (Form D-12)							■																													If Applies
92 Payment of Retainage			■	□																□																If Applies
93 Occupancy and Use																																				
A. Orientation	□	□	■	□																	□								□	□	□		□			
B. User's Manual				□																										□	□		■			
94 Adjust Hazardous Material Management Plan				□	■																															Within 90 Days of #90
95 1 Year Warranty Inspection				□																										□	■		□			
96 Post-occupancy Evaluation	□	□	■	□																	□										□					

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Chapter 2

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Section 201 – General Information

State funds are available to assist districts in paying for:

1. Districtwide study and survey activities.
2. Developing educational specifications.
3. Planning, design, and construction of school facilities.
4. Value engineering.
5. Energy conservation reports.
6. Certain inspections and testing.
7. Furniture and equipment.
8. Constructability reviews.
9. Building commissioning.
10. Construction management.

There are three basic types of school facility projects that may receive state assistance in funding. They are:

1. New construction, including additions to existing facilities.
2. Modernization.
3. Replacement of existing facilities (new-in-lieu).

Eligibility of a district for state assistance and allotments of funding for providing school building facilities shall be determined by the SBE on the basis of criteria described in Section 203.

Section 202 – Basic Policy of the SBE

The SBE recognizes:

1. The statutory responsibilities and authority of the board of directors of a district to determine the type of school facilities it desires to construct for the children of its district.
2. The statutory responsibilities and authority of the SBE to administer control, set terms and conditions, and disburse allotments to districts to assist them in providing school facilities.

In prescribing these rules and regulations, it shall be the policy of the SBE to:

1. Equalize insofar as possible the efforts of districts to provide capital moneys.
2. Equalize insofar as possible the educational opportunities for the students of the state.
3. Establish a level of state support for the construction and modernization of school facilities consistent with moneys available.
4. Recognize that districts may find it necessary to apply local moneys in excess of state matching funds in order to provide facilities commensurate with their respective educational specifications.

The primary documents that form the basis of any agreements between OSPI and the districts are the "D-form" documents. These documents, when properly completed and signed by all parties, form the official notices of agreement and intent on behalf of the district and the SBE. These "D-form" documents are more fully explained in the following sections of this chapter.

Section 203 – Eligibility for State Funding

A project is eligible for state funding if it meets one or more of the following criteria:

1. Need for instructional space based on unhoused students.
2. Need for modernization of an existing facility that satisfies the housing needs of the district and is more than 20 years old and has not been modernized under the provisions of chapter 180-33 WAC in the last 20 years.
3. Need for modernization of a facility that was built after January 1, 1993, and is at least 30 years old.
4. New-in-lieu replacement of existing facilities generally subject to the same criteria as modernization.

New Construction for Unhoused Students

State assistance for unhoused students is based upon a projected student enrollment (see 204) with a space allowance per student compared to existing facility space. Area calculations for facility space shall be calculated and reported in accordance with the instruction included in Exhibit 3C of Chapter 3. For state assistance purposes, per student space allowances are computed in accordance with the following:

1. School facilities:
    - Grades K through 6—80 sq. ft. per student.
    - Grades 7 and 8—110 sq. ft. per student.
    - Grades 9 through 12—120 sq. ft. per student.
    - Classroom space for students with disabilities—140 sq. ft. per student.

    For purposes of these calculations, kindergarten students are counted at 50 percent of actual October headcount, and students with disabilities are counted at actual headcount of each student assigned to a specially designed self-contained classroom for at least 100 minutes per school day.

2. Vocational skills centers, 140 sq. ft. per 50 percent of enrolled students.

3. Small high schools (Grades 9–12) with less than 400 students, allowable areas:
    - 0–100 students—37,000 sq. ft.
    - 101–200 students—42,000 sq. ft.
    - 201–300 students—48,000 sq. ft.
    - 301–400 students—52,000 sq. ft.

    These space allowances are used for purposes of determining eligibility for state assistance and do not necessarily reflect an accurate total of area needs as dictated by the educational specifications (see Chapter 6).

Modernization (or Replacement) of Existing Facilities

State financial assistance for modernization projects is subject to the following limitations:

1. Minimum project costs eligible for state match is not less than 40 percent of the replacement cost of the modernized facility.
2. Maximum project costs eligible for state match is 80 percent of the replacement cost of the modernized facility.
3. New-in-lieu replacement of existing facilities is subject to the same limitations as modernization.

Replacement cost is defined as the total square foot area of the facility or facilities approved for modernization multiplied by the area cost allowance (see 204) at time of bid.

Section 204 – Basic State Support Level

The basic state support level for funding school facilities is determined by the following factors:

1. State Matching Ratio

The matching ratio is the percentage of the matchable amount of project costs that will be paid for by the state and is determined in accordance with the matching formula set forth in RCW 28A.525.166. The ratio varies in relation to the local district's ability to raise funds measured in terms of assessed value per student. Statewide, matching ratios average 50 percent, but vary from a mandated minimum of 20 percent to 100 percent. The variation in matching ratios equalizes the differences in local school districts' abilities to fund construction.

A district's matching ratio applies to the calendar year in which the ratio is determined. Districts should consult with OSPI regarding the determination of their matching ratio for budget planning purposes.

The applicable matching ratio is the highest of those determined at three different times during the development process. They are:

a. At time of securing local funding (normally passage of school bond issue).
b. At time of SBE project approval (Form D-4).
c. At date of secured funding status or authorization to open bids (Form D-8 or Form D-8[1]).

In the event that a district is otherwise eligible to receive approval to bid one or more projects but a lack of state matching funds precludes the issuance of such approval(s), the district shall retain the higher percentage of state assistance as provided for above for such approval(s). This provision shall apply to all projects having received project approval by the SBE after September 1, 1997.

The percentage for each district is reviewed and revised annually by OSPI (see Exhibit 2A for matching ratio calculation).

Matching ratios can be found on the School Facilities and Organization Web site: www.k12.wa.us/facilities.

2. Enrollment Projections

School facility capacity needs are estimated on the basis of the following:

a. A three- or five-year cohort survival enrollment projection for growth districts, whichever is greater.
b. A three- or five-year cohort survival enrollment projection for declining districts, whichever is lesser.
c. Actual enrollment of preschool students with disabilities.
d. Other supplemental information regarding district growth factors.

3. Area Cost Allowance

The maximum area cost allowance used in calculating state financial assistance for construction is established annually by the SBE no later than August 31 of each year. This allowance is computed using recognized construction cost index averages for six cities in Washington State and for Portland, Oregon. This allowance is projected for each of the 12 months starting from the first day of September. The specific area cost allowance for a project is determined by the cost allowance in effect for the month that construction bids are opened.

Section 205 – Determining the Amount of State Assistance

State assistance to a district for funding school facilities is illustrated in Table 2.1 on the following page. The amount of financial assistance available in each category to a district is determined by the maximum amount indicated in the table.

Table 2.1 School Funding Grants

CHAPTER 2		Multiply the following amounts by the State Matching Percentage		
Assistance For:	**Applies To:**	**New/Additions**	**Modernization**	**New-in-Lieu**
Eligible Construction Cost WAC 180-27-020(2)(a)	Any SBE-Funded Project	Area Cost Allowance **X** Approved Area	Actual Bid Cost Per SF - Not to Exceed 80% (0.8) of the Area Cost Allowance **X** Approved Area	
Educational Specifications WAC 180-27-065	Any SBE-Funded Project Except existing facility additions less than 15,000 SF and transportation co-ops	**Greater of:** (a) 1/4 of 1% (.0025) of Area Cost Allowance **X** Approved Area **or** (b) $10,000	**Greater of:** (a) 1/4 of 1% (.0025) of Area Cost Allowance **X** Actual Bid Cost Per SF - Not to Exceed 80% (0.8) of the Area Cost Allowance **X** Approved Area **or** (b) $10,000	
Basic Architectural/ Engineering Fees WAC 180-27-070	Any SBE-Funded Project; or Any School Structure Except Barn or Agricultural Building RCW 18.08.410	Fee Percentage from WAC 180-27-070 **X** Area Cost Allowance minus WSST **X** Approved Area	1.5 **X** Fee Percentage from WAC 180-27-070 **X** Actual Bid Cost Per SF minus WSST - Not to Exceed 80% (0.8) of the Area Cost Allowance minus WSST **X** Approved Area	Fee Percentage from WAC 180-27-070 **X** Actual Bid Cost Per SF minus WSST - Not to Exceed 80% (0.8) of the Area Cost Allowance minus WSST **X** Approved Area
Energy Conservation Report Preparation and Review Fees WAC 180-27-075	Any SBE-Funded Project Over 25,000 Square Feet	Preparation Fee - Up to $10,000 Review Fee - Up to $2,000		
Value Engineering Study **Constructability Reviews** **Building Commissioning** WAC 180-27-080	Any SBE-Funded Project Over 15,000 SF Optional 15,000–49,999 SF Required over 50,000 SF	**Greater of:** (a) 2/5 of 1% (0.0040) of Area Cost Allowance **X** Approved Area, **or** (b) $20,000	**Greater of:** (a) 2/5 of 1% (0.0040) of Area Cost Allowance **X** Actual Bid Cost Per SF - Not to Exceed 80% (0.8) of the Area Cost Allowance **X** Approved Area, **or** (b) $20,000	
Construction Cost-Saving Incentive WAC 180-27-085	Any SBE-Funded New School or Major Addition Where Actual Bid Cost Per SF is **less** than the Area Cost Allowance, (An addition must be at Least 50% of the Existing Building Area)	Local Share = 60% of Amount Actual Bid Cost Per SF **below** the Area Cost Allowance	Does Not Apply	
Furniture and Equipment WAC 180-27-090	Any SBE-Funded Project	Elementary = 2% Middle School = 3% High School = 4% Disabled = 5% Trans. Coop = 7% **X** Area Cost Allowance **X** Approved Area	Elementary = 2% Middle School = 3% High School = 4% Disabled = 5% Trans. Coop = 7% **X** Area Bid Cost Per SF - Not to Exceed 80% (0.8) of the Area Cost Allowance **X** Approved Area	
Special Inspections and Testing WAC 180-27-100	Section 1701 of the UBC	Actual Costs		
Construction Management WAC 180-27-102	Any SBE-Funded Project over 50,000 SF, optional less than 50,000 SF	2 ½ % of Area Cost Allowance **X** SF at time of bid		

Costs for any of the above categories that exceed the maximum allowable state grants shall be financed by the district. Additional guidance can be found in chapters 180-27 and 180-33 WAC.

The following terms and abbreviations are used in this table:

Area Cost Allowance	See WAC 180-27-060 and WAC 180-27-063	SF	Square Feet
		UBC	Uniform Building Code
Approved Area	See WAC 180-25-040	WAC	Washington Administrative Code
RCW	Revised Code of Washington	WSST	Washington State Sales Tax
SBE	State Board of Education	X	Multiply By

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Section 206 – Additional State Assistance

Additional state assistance is available to districts for the following purposes:

1. **School Facility Abatement and Order to Vacate**
   If a school facility is abated and ordered to vacate and required to be replaced as defined in WAC 180-27-115, the district is eligible for additional assistance if the district has authorized the issuance of bonds and/or levying of excess taxes to its legal limit.

2. **Interdistrict Cooperative Centers**
   For interdistrict cooperative projects conforming to provisions of chapter 180-31 WAC, districts are eligible to receive moneys at 75 percent of the total approved project cost determined eligible for state match. To be eligible, the facility shall meet the following criteria:
   - Provides educational opportunities, including vocational skill programs, not otherwise provided.
   - Avoids unnecessary duplication of specialized or unusually expensive educational programs or facilities.

3. **School Housing Emergency**
   A district with a housing emergency requiring an allocation of state moneys in excess of the amount allocable under the statutory formula is eligible for additional assistance if the district has authorized the issuance of bonds to its legal limit.

   The total amount of state moneys allocated shall be the district's regular match plus 20 percent but shall not exceed 90 percent of the total approved project cost determined to be eligible for state match.

   The additional state moneys issued shall be subject to recapture by the state from any future state facility construction funds if the financial position of the recipient district has improved.

4. **Improved School District Organization**
   The SBE shall match the total approved costs of the project at 75 percent if two or more districts reorganize into a single district and the construction of new school facilities results in the elimination of:
   - A high school with a full-time equivalent enrollment in Grades 9–12 of less than 400 students.
   - An elementary school with a full-time equivalent enrollment of less than 100 students.

5. **Racial Imbalance**
   If a district that has a racially imbalanced school facility as defined in WAC 180-26-025 demonstrates that new construction or modernization eliminates the racial imbalance in accordance with WAC 180-27-115(5), the district may receive an additional 10 percent above the district's regular match. This amount may not exceed 90 percent of the total approved cost of construction.

If the school facility does not remain racially balanced for five years, the additional state moneys shall be subject to recapture by the state from any future state facility construction funds.

Section 207 – Costs to be Financed Entirely with Local Funds

The cost of the following items shall not be eligible for state matching purposes per WAC 180-27-120:

- Area in excess of the space allocations in WAC 180-27-035.
- Acquisition cost of the site.
- Maintenance and operation.
- Alterations, repair, and demolitions except alterations necessary to connect new construction to an existing building.
- Central administration buildings.
- Stadia/grandstands.
- Costs incidental to advertising for bids, site surveys, soils testing for site purchase, and costs other than those connected directly with the construction of facilities.
- Bus garages, except interdistrict cooperatives.
- Project signs.
- Sales and/or use taxes levied by local governmental agencies other than those sales and/or use taxes generally levied throughout the State of Washington.
- All costs in excess of state support level factors established by the SBE.
- All costs associated with the purchase, installation, and relocation of portable classrooms.

Other Items:
Costs for work performed by district staff for tasks (other than construction management as defined by WAC 180-27-102) shall not be eligible for state matching funds.

Section 208 – Study and Survey Application (Form D-1)

The first step for the district is to submit to OSPI Form D-1, which is an application requesting state assistance for a study and survey planning grant from the SBE. (WAC 180-25-030)

Refer to Chapter 3 of this manual for responsibilities and requirements for preparing the study and survey.

Section 209 – Planning Grant Award (Form D-2)

When the application for state assistance for conducting the study and survey has been approved by the SBE, OSPI will issue Form D-2. This form stipulates the amount of the grant money to be available to the district.
The grant amount is determined by a base sum (determined by the total enrollment of the district) plus a variable allocation based on the district's estimated gross square footage of existing school facilities. This grant may only

partially fund the total cost of conducting the study and survey, depending upon the complexity of the district's problems and goals. See Form D-1 in Exhibits at the end of this chapter for calculation of the grant.

After receiving Form D-2, the district should then proceed to complete the study and survey in accordance with Chapter 3 of this manual. The completed study and survey must be submitted to OSPI for review and comment. Usually the new study and survey is submitted with the district's submittal of Form D-3 (project application).

Section 210 – Application for Project Approval (Form D-3)

Form D-3 is the district's official request to the SBE for project approval. A separate Form D-3 is required for each proposed project.

The district should not submit this form for approval unless the district is ready to begin construction on this project within a period of time not exceeding two years and 90 calendar days from issuance of Form D-4 (project approval).

Form D-3 must be submitted to OSPI no less than 60 days prior to the SBE meeting at which the district wishes the application to be considered.

Requests for new-in-lieu replacement of existing facilities must be accompanied by a school board resolution stating that the replaced facility will not be used for instructional purposes after the new facility has been accepted.

Section 211 – Project Approval (Form D-4)

Upon receiving the district's Form D-3, the SBE will take one of the following actions:

1. Deny approval of the project.
2. Grant approval of the project and authorize the amount of square footage that the state will match.

If local funding has been secured, and Form D-4 has been granted by January 31, the project may be eligible for funds released the following July.

If approval is granted, OSPI will issue Form D-4 stating such approval and also any conditions that may or may not be applicable, including whether the SBE has approved or denied eligibility for additional state assistance. (WAC 180-27-115)

Districts should be aware that projects at this stage do not have secured funding until Form D-8 has been issued by OSPI.

Section 212 – Application for Preliminary Funding Status (Form D-5)

Upon receipt of Form D-4, the district may proceed as required to:

1. Develop the educational specifications for the project in accordance with Chapter 6 of this manual.
2. Select the site for the project in accordance with Chapter 5 of this manual.
3. Obtain the capital funds required for the project. Refer to Chapter 4 of this manual.
4. Select the architectural/engineering design team for the project (if not accomplished earlier).
5. Select the value engineering consultant for the project.
6. Issue construction management contract or hire for construction management services.
7. Contract for constructability review.
8. Contract for building commissioning.

If the district is unable to submit a completed Form D-5 with the educational specifications and certification of availability of capital funds for the project within one year of the date of issuance of Form D-4, it will be required to return to the Form D-3 phase of the process of obtaining state assistance for financing.

When the district's D-5 submittals have been accepted and approved by OSPI, the district is authorized to proceed with design of the facility, complete the energy conservation report, and complete a value engineering study.

Section 213 – Deferred Payment

A district may proceed with a project at its own financial risk. This process is commonly known as "front funding." At such time as state moneys become available, reimbursement **may** be made for the project provided that the project complies with provisions of chapter 180-29 WAC.

If the district elects to front fund a project, it must comply with all the rules and regulations designated by the SBE as if the district were receiving state moneys in the normal manner.

All front-funded projects require that the district submit a formal request on Form D-5, indicating availability of local funds to cover the entire cost of the project.

Section 214 – Grant of Preliminary Funding Status (Form D-6)

Upon receipt of the district's Form D-5 and supporting documents, OSPI will review these documents, review the site, and issue authorization of preliminary funding status Form D-6 (Form D-6[1] for front-funded projects) to the district.

The authorizations offered in Forms D-6/D-6(1) are subject to the conditions of WAC 180-26-040 and WAC 180-29-107.

The district is reminded that, until issuance of Form D-8 (Form D-8[1] for front-funded projects), the project has neither secured funding nor authorization to open bids.

Section 215 – Priority System

State funding for school construction is dependent upon availability of revenue from various sources. If state aid is insufficient to meet all districts' requests, a priority system is imposed. The priority system for the funding of school construction projects is stated in WAC 180-27-500 through 180-27-535.

The key element of the priority system is that it uses a single scale of values and ranks both growth-related projects (new buildings and additions needed to expand capacity) and condition-related projects (modernization and new construction in lieu of modernization) within the same system. The maximum points that can be received by a growth-related project are 90, while 75 are the maximum points a condition-related project can receive.

Growth-Related School Projects

Projects eligible due to projected unhoused students can receive up to 90 points, 65 of which are related to factors unique to that type of project. These are:

1. The projected percentage of students unhoused is based on enrollment projections by OSPI for Grades K–8 and 9–12 five years into the future using current SBE space factors. If the projected district percentage unhoused is less than 5 percent, a minimum of 15 points is awarded. If the projected percentage unhoused is between 5 percent and 40 percent, then the 40 remaining points (55 minus 15) are awarded proportionately.
2. Mid-range projection is based on OSPI-projected enrollment three years into the future and provides up to 5 points for a project. The project's point score is first multiplied by the percentage relationship between the 55 points in the unhoused factor and the 5 points in this factor (5/55 = .091). This produces the maximum points a project can be awarded in this category. The actual points are determined by the relationship between the district's unhoused percentage three years into the future and its unhoused percentage five years into the future.
3. The number of years unhoused factor provides 1 point per year (up to a maximum of 5 points) that a district has had an unhoused condition in the applicable grade category in the past five years.

Modernization or Replacement of Existing School Facilities

Projects eligible due to age, condition, or condemnation can receive up to 75 points, 50 of which are related to factors unique to that type of project.

1. Health and safety factors, up to 20 points can be awarded based on a site evaluation of safety and code factors. Up to 16 points are awarded based on the applicable score on the building condition evaluation form (BCEF) and up to 4 points for failing to meet seismic code and for the presence of asbestos.

2. Building condition is rated on the summary sheet of the BCEF, incorporated into the study and survey, and provides up to 30 points. If the building condition score is 31 or less (indicating "poor" condition), then the maximum 30 points are awarded to the project. If the condition score is 91 or more (indicating no significant problems), then no points are awarded. If the condition score is between these extremes, the points are awarded proportionately. BCEFs must be audited and certified by a regional facility coordinator before a project can be prioritized.

   School districts need only to submit the BCEF summary sheet signed by both the district representative and the preparer with the study and survey. However, for audit purposes, districts need to keep the entire checklist on file.

3. A cost/benefit factor is used to modify the condition score if the proposed project does not correct the problem in the most cost-effective way. If the condition score is less than 40 on the BCEF, up to 10 points are deducted from the condition score if a modernization is proposed on the basis that new construction replacing the old facility would be the most appropriate approach. Similarly, up to 10 points are deducted if the condition score is greater than 60 and new construction is proposed rather than modernization.

Common Factors

All projects receive up to 25 points from the following four factors:

1. The type of space resulting from the project allocates from 4 to 10 points. Space used for scheduled instruction and libraries (classrooms, laboratories, PE teaching space, libraries, and learning resource centers) is rated at 10 points. Space used in support of instruction (assembly, student services, office space, and classroom/lab service and support) is accorded 7 points, while space used for cafeteria/food service, spectator seating, covered play areas, and general support is counted at 4 points. The total value is calculated based on the proportion of the different space types in the project.
2. Local priority provides 5 points for the district's first priority project, 4 for its second and so on, until 0 for its sixth and lower priorities.
3. Joint funding for projects in cooperation with other local government entities or private donor is awarded 5 points. Impact fees and federal construction support funds are not included. To receive the points, the joint funding must equal at least 25 percent of project costs of $1 million or less and increases on a sliding scale to $500,000 for projects costing $10 million and over.
4. Modified school calendar or schedule provides up to 5 points for districts that have adopted a modified school calendar or schedule that enables more students to use school buildings each year over what the current state capacity standards at WAC 180-27-035 recognize for state assistance purposes. The modified calendar or schedule must utilize either extended days or additional days for instruction in the year.

Table 2.2 SBE Priority Scoring Factors

New Construction

25 Points Maximum	Common Factors
5 Points Maximum	No. of Years Unhoused
5 Points Maximum	Mid-Range Projection
55 Points Maximum	Projected % Unhoused If % unhoused is ≥ 40% = 55 pts. If % unhoused is < 5 %, min. = 15 pts. If % unhoused is between 5–40%, the remaining 40 pts. are proportionally awarded.

Total = 90 Points Maximum

Modernization

25 Points Maximum	1. Type of Space Instructional = 10 pts. max. Support = 7 pts. max. General = 4 pts. max. 2. Local Priority = 5 pts. max. 3. Joint Funding = 5 pts. max. 4. Modified School Calendar = 5 pts. max.
30 Points Maximum	Building Condition Score If building score is 31 or less, 30 points are awarded. If building score is 91 or more, 0 points are awarded. If building score is between 31–91, points are awarded proportionally.
20 Points Maximum	Health and safety up to 16 pts. Plus 2 pts. for failure to meet seismic code. Plus 2 pts. for asbestos presence.

Total = 75 Points Maximum

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Section 216 – Application for Secured Funding Status (Form D-7)

Once the district's Form D-5 has been approved by OSPI, the design and construction documents for the project may be completed. Form D-7 is submitted by the district to OSPI at the point that the district is ready to receive construction bids. Form D-7 is accompanied by the following documents and approvals as required:

1. Architect/engineer cost estimate for each type of construction on a Form D-7B furnished by OSPI. (Refer to Exhibit 2B Sample D-Forms.)
2. Copy of agreement(s) for:
   - Architect/engineer.
   - Value engineering consultant.
   - Construction management.
   - Constructability review.
   - Building commissioning.
   - Educational specification consultant.
   - Energy conservation consultant.
3. Letters of approval from:
   - Fire marshal or fire chief having jurisdiction.
   - Electrical inspector, Department of Labor and Industries or appropriate jurisdiction.
   - Health agency having jurisdiction.
   - Building official having jurisdiction.
   - Washington State Energy Office/Department of General Administration.
   - Washington State Department of Ecology or applicable local jurisdiction.
4. Building area analysis and assignable square footage on forms provided by OSPI. (Refer to Exhibit 2B Sample D-Forms.)
5. Complete listing of all required special inspections and testing.
6. Copy of value engineering report and implementation actions taken by the district's board of directors.
7. Architect/engineer building code compliance certification.
8. Microfilm copy of contract documents, including addenda. Note: Dodge SCAN (see Appendix B) forwards a copy to OSPI as part of their circulation process.

Only special inspections and testing required by Chapter 17 of the Uniform Building Code (UBC) are considered matchable with state funds.

If the district is unable to submit a completed Form D-7 with all of the required documents and approvals within one year of the date of approval of Form D-5 and submittals, it will be required to return to the Form D-3 phase of the process.

Bid forms shall provide for a separate bid amount for each of the applicable OSPI funding categories, i.e., new construction, modernization, as well as non-matchable costs such as off-site improvements. Alternate bids must also be structured to separate bid costs into these categories.

A project will be eligible for the state funding release each July 1 when:

- A complete Form D-7 with required attachments is submitted to and approved by OSPI on or before June 30.
- The project has secured local funding prior to December 31 of the prior year.

- The project has State Board approval (Form D-4) on or before the previous January 31.

Section 217 – Authorization to Proceed with Bid Opening (Form D-8)

Upon receiving Form D-7 and submittals, OSPI will review all of the documents and approvals. When approved, OSPI will confirm the eligibility of the district and prepare a breakdown of all costs for the project and estimate the amount of each item to be paid by the state and by the district.

OSPI will then include the statement of eligibility and the breakdown of all costs on Forms D-8/D-8(1) which will be forwarded to the district. Forms D-8/D-8(1) constitutes authorization to proceed with the bid opening for the project.

Districts are reminded that they are not authorized to open bids on the proposed project until they have received Forms D-8/D-8(1) from OSPI. Failure to do so may jeopardize state match funding.

The district must obtain acceptable bids for construction of the project and submit Form D-9 within 90 days from the date of issuance of Forms D-8/D-8(1). If this is not accomplished within the stipulated time, the district is required to return to the Form D-3 phase of the process.

Districts are not authorized to sign contracts until a Form D-10 (or Form D-10(1) for front-funded projects) is issued to the district by OSPI.

After evaluation of all bids received, the district's board of directors shall approve a recommendation for award of the base bid contract and alternate bids, if any, to the lowest responsible bidder.

Section 218 – Application to Enter Into Contracts (Form D-9)

When the bids have been evaluated and the contract amount has been determined, the district must complete Form D-9 and submit it to OSPI with certified copies of the following documents:

1. Each advertisement for bid (two required) together with the publisher's certificate of publication.
2. Tabulated statement of all bids received with the bid amounts (including alternates) and the names and addresses of all bidders.
3. School board recommendation for award of contract, including all alternates accepted.
4. Successful bidder's form of proposal.
5. A statement certifying all local and/or other disbursable funds available for the project.
6. Resolution certifying intent to construct project.
7. For modernization projects only, submit a copy of the resolution by the school board certifying that the project will:
   a. Be used for instructional purposes for five years.
   b. Extend the life of the modernized school for at least 20 years.
8. Architectural/engineering fees.

9. Certification of costs of educational specifications, energy conservation report, value engineering, and special inspections and testing.

Section 219 – Authorization to Sign Contracts for Construction (Form D-10)

Upon receipt of Form D-9 and required submittals, OSPI will review the documents and issue Form D-10 (Form D-10[1] for front-funded projects).

Forms D-10/D-10(1) allocates state funds for the project and authorizes the district and contractor to sign the contract for construction.

Districts that receive Form D-10(1) for front-funded projects will receive a Form D-10 when state assistance becomes available for the project.

Section 220 – During the Construction Period

Immediately following the award of the contract, the district must forward to OSPI one copy each of the following:

1. Each properly executed contract.
2. Contractor's cost breakdown or schedule of values.
3. Contract payment schedule projecting amounts of progress payments throughout the project.

During the construction period, the district shall make payments on all claims made for service in accordance with the contract provisions for these services and in compliance with the requirements of chapter 180-29 WAC. No payments shall be made on construction claims for work accomplished without certification from the architect/engineer that such work has been completed. Payments for construction work are subject to retainage or a retainage bond in accordance with the provisions of chapter 60.28 RCW and WAC 180-29-147.

When all district moneys obligated for the project have been expended, a signed statement by the authorized agent of the district shall be submitted to OSPI (refer to the exhibits in Chapter 10). The statement shall list:

- All payments to contractors and others.
- Retainage or a bond in lieu of retainage.

After all district moneys are expended, payments will be made from state moneys to the completion of the mutual obligations.

During the construction period, copies of all change orders shall be forwarded to OSPI when fully executed. The final contract cost will be determined in accordance with WAC 180-29-150.

Section 221 – Application for Release of Retainage (Form D-11)

Upon final completion of the project by the contractor(s), the architect/engineer shall inspect the project to determine compliance with the construction documents. When compliance has been determined, the architect/engineer shall issue a certificate of completion to the district along with a statement of square footage of the completed project. The district shall then proceed to accept or reject the project. Release of retainage, whether cash or bond in lieu of cash, shall be made only after OSPI receives the following documents:

1. Form D-11 transmitted with:
   - Properly executed state invoice voucher.
   - Architect/engineer certificate of completion and statement of square feet of project.
   - District's board of directors resolution of final acceptance.
   - Copy of building commissioning report as accepted by the district's board of directors (if required).
2. Within 45 days from date of submittal of Form D-11:
   - Certification by the district's authorized agent that the district has on file all affidavits of wages paid. (RCW 39.12.040)
   - Occupancy permit issued by building official having jurisdiction.
3. After 45 days from date of submittal of Form D-11:
   - Signed statement by the authorized agent of the district that no liens are on file or that a certified list of each lien is on file with the district.
   - A copy of each lien.

If liens are filed with the district, the amount of each lien plus 10 percent and $3,000 or 25 percent of the amount of each lien (whichever is greater) shall be withheld from the retainage until each lien is removed.

If the district is administering retainage, whether cash or bond in lieu of cash, the district must also submit releases from the following Washington State agencies:

- Employment Security Department
- Department of Labor and Industries
- Department of Revenue

Section 222 – Release of Retainage (Form D-12)

Form D-12 is required only if liens have been filed and if OSPI is administering the retainage. Upon receipt of all documents described in Section 221, OSPI will issue Form D-12 which grants the release of retainage excepting only those sums which are to be withheld pending release of any liens which have been filed with the district.

As each lien is withdrawn, further D-12 forms will be issued confirming authority to release appropriate sums from the withheld retainage.

PROJECT CHECKLIST

SCHOOL DISTRICT: ____________ **NO:** ____ **PROJECT:** ____________

	REQUIRED YES	REQUIRED NO	DATE RECEIVED	RCVD BY
FORM D-3	X			
FORM D-6	X			
S.D. Authorized District Personnel (Resolution)	X			
S.D. Cert./Racial Balance (Resolution)	X			
Cert. of Bond/Levy Passage	X			
Statement of Compliance w/ SEPA WAC 197-11	X			
S.D. Board of Directors Approval of Ed Specs				
Front Funding Letter				
SITE:				
Site Size				
SPI Review/Approval	X			
FORM D-7	X			
CONTRACTS:				
Architect's Contract ORANGE	X			
Construction Management Contract				
Ed. Specs. Contract RED				
Value Engineering Contract GREEN				
Constructability Review Contract				
Building Commissioning Contract				
Energy Contract YELLOW				
LETTERS OF APPROVAL FROM:				
Fire Marshal's Approval	X			
Electrical Approval	X			
Health Department Approval	X			
On-Site Sewage Approval (DOE/DOH/County)				
Bldg. Official of Juris. Approval	X			
G.A. Energy Report Approval				
Inspections & Testing List PURPLE	X			
Arch. Cert. of Compliance w/State Bldg. Code	X			
ARCHITECTURAL ITEMS:				
Architect's Area Analysis	X			
ASF Form BLUE	X			
Microfilm	X			
Wage Rates (Chapter 39.12 RCW)	X			
Nondiscrimination (Chapter 49.60 RCW)	X			
Hours of Labor (Chapter 49.28 RCW)	X			
Contractor's Bond (Chapter 39.08 RCW)	X			
Contractor's Reg. (Chapter 18.27 RCW)	X			
Prov. for Physically Hdcp. (Chapter 70.92 RCW)	X			
VALUE ENGINEERING and CONSTRUCTABILITY REVIEW:				
Value Engineering Report				
S.D. Implementation Report				
Constructability Review Report				
S.D. Implementation Report				
BOARD RESOLUTIONS FOR MODERNIZATION PROJECT:				
5-Year Use of Building	X			
20-Year Building Life	X			
FORM D-9	X			
Advertisements for Bid (Two are required)	X			
Bid Tabulation	X			
S.D. Rec. for Bid Award Including Alternates	X			
Successful Bidder's Form of Proposal	X			
Names/Addresses of Bidders	X			
Statement of Disbursable Funds Available	X			
Resolution of Intent to Construct Project	X			
Cert. of Costs-Ed Specs (Final Billing)				
Cert. of Costs-Value Eng. (Final Billing)				
Cert. of Costs-Constructability Review (Final Billing)				
Cert. of Costs-Energy Report (Final Billing)				
Cert. of Costs-GA Energy Review Fee $2,000				
A/E Fee Calculation	X			
Construction Mgmt. Fee Calculation				
Cert. of Costs-Inspection/Test (Estimate)	X			

COMMENTS

MATCHING RATIO

	Mo./Yr.	%
BOND PASS		
D-4		
D-8		

No. of acres ☐ # of kids

ESTIMATED BID DATE: ____________

EARLY BID CONTRACTS:
Site Work ☐
Asbestos ☐
Other ______ ☐

[illegible]

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OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
School Facilities and Organization
Old Capitol Building, PO BOX 47200
OLYMPIA WA 98504-7200
(360) 753-6702 TTY (360) 664-3631

FORM D-1
STUDY AND SURVEY GRANT APPLICATION

The D-1 is an application for a grant to assist with the cost of preparing a *Study and Survey* of existing and proposed facilities in accordance with WAC 180-25-030. (Refer to Chapter 3 of the *School Facilities Manual.)*

To determine if your district is eligible to receive a study and survey grant, please contact your regional coordinator.

SCHOOL DISTRICT INFORMATION

School District: ____________________ No. ________
Address: ____________________
City: ____________________
Zip Code: ____________________
County: ____________________
Contact Person: ____________________
Telephone: ____________________
Fax: ____________________
E-Mail: ____________________

School districts are eligible for a study and survey grant once every six years.

The calculation of the grant is based on the following table.

SAMPLE

CALCULATION OF GRANT

Oct. 1 Headcount Enrollment (w/ kindergarten students @ 50%)
Existing sq. ft. according to OSPI Inventory (Report 3)

Headcount Enrollment Categories

Enrollment of	1 to 500	$4,000 + $.03 / Sq. Ft.
Enrollment of	501 to 3,000	$4,500 + $.02 / Sq. Ft.
Enrollment of	3,001 to 10,000	$6,000 + $.0175 / Sq. Ft.
Enrollment of	Above 10,000	$9,000 + $.015 / Sq. Ft.

Date: ____________________

Signature: ____________________
School District Superintendent

Return completed form to:
School Facilities and Organization
Office of Superintendent of Public Instruction
Old Capitol Building
PO BOX 47200
OLYMPIA WA 98504-7200
Fax Number: (360) 586-3946

FORM D-1 (Rev. 3/00)

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School Facilities and Organization
Old Capitol Building, PO BOX 47200
OLYMPIA WA 98504-7200
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FORM D-2
STUDY AND SURVEY PLANNING GRANT AWARD

The D-2 is notification of the grant amount awarded to the district for the purpose of completing the study and survey (Refer to Chapter 3 in the *School Facilities Manual*).

SCHOOL DISTRICT INFORMATION

School District: ____________________ No. ______
Address: ____________________
City: ____________________
Zip Code: ____________________
County: ____________________
Contact Person: ____________________
Telephone: ____________________
Fax: ____________________
E-Mail: ____________________

GRANT INFORMATION

In accordance with WAC 180-25-030, a grant in the amount of **$0** has been awarded to your school district by the State Board of Education.

Two copies of the completed study and survey shall be submitted to the Office of Superintendent of Public Instruction, Facilities and Organization Section. Payment of this grant will be a one time reimbursement following receipt of the Study and Survey Claim Form SPI 1482 together with a certified statement listing school district disbursements.

SAMPLE

Claims for payment should be filed within one year after the date of this grant.

If you have any questions, please contact your regional coordinator.

CALCULATION OF GRANT

Oct. 1 Headcount Enrollment (w/ kindergarten @ 50%): 0
Existing sq. ft. (according to OSPI Report 3): 0

Headcount Enrollment Categories

Enrollment of	1 to 500	$4,000 + $.03 / Sq. Ft.
Enrollment of	501 to 3,000	$4,500 + $.02 / Sq. Ft.
Enrollment of	3,001 to 10,000	$6,000 + $.0175 / Sq. Ft.
Enrollment of	Above 10,000	$9,000 + $.015 / Sq. Ft.

STATE BOARD OF EDUCATION

Date of Grant: ____________

____
President

FORM D-2 (Rev. 3/00)

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FORM D-3	PROJECT APPLICATION
FORM D-4	PROJECT APPROVAL
FORM D-5	APPLICATION FOR PRELIMINARY FUNDING STATUS
FORM D-6	PRELIMINARY FUNDING STATUS
FORM D-6(1)	AUTHORITY TO PROCEED WITH DESIGN FRONT-FUNDED STATUS
FORM D-7	APPLICATION TO PROCEED WITH BID OPENING • ESTIMATE OF CONSTRUCTION COST • AREA ANALYSIS SUMMARY FORM • AREA ANALYSIS WORKSHEET • SUMMARY OF ASSIGNABLE SQUARE FEET (ASF) BY BUILDING • ASF ATTACHMENT SUMMARY OF ASSIGNABLE SQUARE FEET (ASF) INSTRUCTIONS SPACE INVENTORY CATEGORIES
FORM D-8	AUTHORIZATION TO PROCEED WITH BID OPENING WITH SECURED FUNDING STATUS
FORM D-8(1)	AUTHORIZATION TO PROCEED WITH BID OPENING FRONT-FUNDED STATUS
FORM D-9	APPLICATION FOR AUTHORIZATION TO SIGN CONTRACTS
FORM D-10	AUTHORIZATION TO SIGN CONTRACTS WITH SECURED FUNDING STATUS
FORM D-10(1)	AUTHORIZATION TO SIGN CONTRACTS FRONT-FUNDED STATUS
FORM D-11	APPLICATION TO RELEASE RETAINAGE
FORM D-12	RETAINAGE RELEASE APPROVAL

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FORM D-3
PROJECT APPLICATION

The D-3 is an application for project approval for state assistance for new construction and/or modernization of a school facility. Please contact your regional coordinator for any additional required information that may need to be submitted with this application.

SCHOOL DISTRICT INFORMATION

School District: ______________ No. ______ County: ______________
Address: ______________ Contact Person: ______________
City: ______________ Telephone: (   ) ______________
Zip Code: ______________ Fax: (   ) ______________
E-Mail: ______________

PROJECT INFORMATION

Project Name: ______________

Proposed Project Type:

		office use only
New Facility/Unhoused Students	________ sf	________ sf
New Construction/Addition to Existing	________ sf	________ sf
Modernization	________ sf	________ sf
New Construction-in-Lieu of Mod (N/L)	________ sf	________ sf

SAMPLE

Total area of existing facility: ________ sf

Estimated total of all project costs: $ ________

Estimated bid date: Mo. ______ Yr. ______

Local matching funds secured: Yes ______ No ______

If yes, when were they secured? Mo. ______ Yr. ______

What was the amount? $ ________

If no, when is election scheduled? Mo. ______ Yr. ______

Do you intend to front-fund this project? Yes ______ No ______

Funding Source(s):
_____ Bond
_____ Capital Levy
_____ Impact Fees

Date: ______________

Signature: ______________
School District Superintendent

Return completed form to:

School Facilities and Organization
Office of Superintendent of Public Instruction
PO BOX 47200
OLYMPIA WA 98504-7200

FORM D-3 (Rev. 3/00)

OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
School Facilities and Organization
Old Capitol Building, PO BOX 47200
OLYMPIA WA 98504-7200
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FORM D-4
PROJECT APPROVAL

The D-4 is notification that the State Board of Education has approved eligibility for state assistance for this school project. The district is authorized to prepare educational specifications, select and/or evaluate a site, and to select and contract for architectural/engineering and construction management services.

Construction management is **required** on all projects larger than 50,000 square feet and is optional for projects less than that.

Projects greater than 50,000 square feet **require** that the district contract for value engineering, a constructability review, and building commissioning. These services are optional for projects larger than 15,000 square feet but less than 50,000 square feet. These services are nonmatchable for projects less than 15,000 square feet.

Page 2 is a preliminary analysis of state and local shares of matchable project amounts. Actual project costs may exceed these amounts.

If you have any questions regarding this project, please contact your regional coordinator.

School District: ____________________ County: ____________________
Address: ____________________ Contact Person: ____________________
City: ____________________ Telephone: (   ) ____________________
Zip Code: ____________________ Fax: (   ) ____________________
E-Mail: ____________________

SAMPLE

APPROVED PROJECT INFORMATION

Project Name: ____________________

Project Type:

New Facility/Unhoused Students	0	sf
New Construction/Addition to Existing	0	sf
Modernization	0	sf
New Construction-in-Lieu of Mod (N/L)	0	sf

Estimated Bid Date: Jul-00 **1999** State Matching Ratio Applies: 0.00%

THIS PROJECT DOES NOT HAVE A COMMITMENT OF STATE FUNDS

There is no commitment whatsoever by the State Board of Education, the Office of Superintendent of Public Instruction, or the State of Washington to any amount of state assistance for this project. (WAC 180-25-043)

TIME LIMIT

A complete D-5 Application for Preliminary Funding Status must be received and approved by the Office of Superintendent of Public Instruction by the compliance due date (WAC 180-26-050).

COMPLIANCE DUE DATE: ____________________
(one year from approval date)

ELIGIBLE RELEASE DATE FOR THIS PROJECT MAY BE JULY 1, 2001

STATE BOARD OF EDUCATION

Approval Date: ____________________ ____________________
President

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OLYMPIA WA 98504-7200
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FORM D-4
PROJECT APPROVAL

PROJECT INFORMATION

Project Name: ____________________

School District: ____________________

APPROVED PROJECT INFORMATION

Project Type: ____________________

		(Estimated) Bid Date:	Jul-00
New Construction:	0 sf	(Estimated) Area Cost Allowance:	$101.75
Modernization:	0 sf	Grade Span:	K-5
New-in-Lieu of Mod:	0 sf	Equipment % Allowance:	2.00%
		Matchable Tax Rate:	7.00%
State Match Ratio:	0.00%	1999 ratio applied	

FINANCIAL ANALYSIS ----- Based on eligible square footage ------

	NEW UNHOUSED	MODERNIZATION	NEW-IN-LIEU
ELIGIBLE AREA:	0	0	0
CONSTRUCTION COST:	$0.00	$0.00	$0.00
MATCHABLE TAX:	$0.00	$0.00	$0.00
TOTAL COST:	$0.00	$0.00	$0.00
COST/SF:	$0.00	$0.00	$0.00

SAMPLE

	PROJECT TOTAL =	STATE SHARE +	LOCAL SHARE
1. New Construction Unhoused:	$0.00	$0.00	$0.00
2. New Construction-in-Lieu of Mod:	$0.00	$0.00	$0.00
3. Modernization @ 40% (Minimum):	$0.00	$0.00	$0.00
4. Modernization @ 80% (Maximum):	$0.00	$0.00	$0.00
-------------			
5. A/E Fee New or New-in-Lieu:	$0.00	$0.00	$0.00
6. A/E Fee Mod @ 40% (Minimum):	$0.00	$0.00	$0.00
7. A/E Fee Mod @ 80% (Maximum):	$0.00	$0.00	$0.00
8. Construction Management Services:	$0.00	$0.00	$0.00
9. Educational Specifications:	$0.00	$0.00	$0.00
10. Value Engineering Report:	$0.00	$0.00	$0.00
11. Constructability Review:	$0.00	$0.00	$0.00
12. Building Commissioning Report:	$0.00	$0.00	$0.00
13. Energy Report:	$0.00	$0.00	$0.00
14. GA Energy Report Review Fee:	$0.00	$0.00	$0.00
15. Inspection and Testing Services:	$0.00	$0.00	$0.00
16. Equipment Allowance New:	$0.00	$0.00	$0.00
17. Equipment Allowance Mod @ 80%:	$0.00	$0.00	$0.00
Total Maximum New Project:	$0.00	$0.00	$0.00
Total Mod Project @ 40% (Minimum):	$0.00	$0.00	$0.00
Total Mod Project @ 80% (Maximum):	$0.00	$0.00	$0.00
Total New-in-Lieu Project:	$0.00	$0.00	$0.00

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School Facilities and Organization
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OLYMPIA WA 98504-7200
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FORM D-5
APPLICATION FOR PRELIMINARY FUNDING STATUS

The D-5 is an application requesting the Office of Superintendent of Public Instruction to grant preliminary funding status for any project with secured local capital funds and project approval (D-4) (Refer to Chapter 5 of the *School Facilities Manual*). If you have any questions regarding this project, please contact your regional coordinator.

PROJECT INFORMATION

Project Name: ____________________

School District:	____________	County:	____________
Address:	____________	Contact Person:	____________
City:	____________	Telephone:	____________
Zip Code:	____________	Fax:	____________
		E-Mail:	____________

EDUCATIONAL SPECIFICATIONS AND SITE INFORMATION

Transmitted with this form are the following:

1. Resolution with signature(s) of authorized district personnel.
2. Resolution certifying that the site will not create or aggravate racial imbalance.
3. Letter certifying that the school district has obtained capital funds for this project including the date of passage and type of capital funds available.
4. Statement of compliance with chapter 197-[illegible] WAC SEPA rules and a copy of the lead agency decision at completion of the SEPA review process.
5. Copy of school district's board of directors' minutes approving educational specifications.
6. If authority to proceed using local funds is desired, a letter stating the district's intent to **"front fund"** the project must be submitted.

SAMPLE

By signing this Form D-5 the district certifies that:

In accordance with WAC 180-26-020 the district has considered the following:

1. The property upon which the school facility is or will be located is free of all encumbrances that would detrimentally interfere with the construction, operation, and useful life of the facility.
2. The site is of sufficient size to meet the needs of the facility.
   Site Acres _______ **Planned No. of Students** _______
3. A site review or predesign conference has been conducted with all appropriate local code agencies in order to determine design constraints.
4. A geotechnical engineer has conducted a limited subsurface investigation to gather basic information regarding potential foundation and subgrade performance.

Date: ###### Signature: ____________________
Authorized District Personnel

A/E Firm: ____________	C/M Svcs.: ____________
Address: ____________ ____________	Address: ____________ ____________
Phone: ________ Fax: ________	Phone: ________ Fax: ________
E-Mail: ____________	E-Mail: ____________

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School Facilities and Organization
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FORM D-6
PRELIMINARY FUNDING STATUS

The D-6 is notification that the Office of Superintendent of Public Instruction has granted preliminary funding status for this school project. The district is authorized to proceed with project design and construction management services as appropriate. If applicable, the district is also authorized to complete the energy conservation report, a value engineering study, constructability review, and contract for building commissioning.

This project **does not have** a commitment of state funds and is proceeding at its own financial risk.

If you have any questions regarding this project, please contact your regional coordinator.

PROJECT INFORMATION

Project Name: ______
School District: ______ No. ______ County: ______
Address: ______ Contact Person: ______
City: ______ Telephone: ______
Zip Code: ______ Fax: ______
E-Mail: ______

SAMPLE

THIS PROJECT DOES NOT HAVE SECURED FUNDING

The district is proceeding at its own financial risk (WAC 180-27-057). The matchable amount of this project is limited to the eligible square footage, the maximum area cost allowance, and the priority standing of the project as determined pursuant to the state building assistance rules in effect upon receipt of this form (WAC 180-26-057).

TIME LIMIT

A complete D-7 Application to Proceed with Bid Opening must be received and approved by the Office of Superintendent of Public Instruction by the compliance due date and prior to the opening of bids for this project (WAC 180-29-107).

COMPLIANCE DUE DATE: ☐
(one year from approval date)

ELIGIBLE RELEASE DATE FOR THIS PROJECT MAY BE JULY 1, 2000

SUPERINTENDENT OF PUBLIC INSTRUCTION

Approval Date: ______ ______

FORM D-6 (Rev 3/00)

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School Facilities and Organization
Old Capitol Building, PO BOX 47200
OLYMPIA WA 98504-7200
(360) 753-6702 TTY (360) 664-3631

FORM D-6(1)
AUTHORITY TO PROCEED WITH DESIGN
FRONT-FUNDED STATUS

The D-6(1) is notification that the Office of Superintendent of Public Instruction has received and approved the school district application for preliminary funding status (D-5). The district is authorized to proceed with project design and construction management services as appropriate based on the district's request to front-fund this project. If applicable, the district is also authorized to complete the energy report, a value engineering study, a constructability review, and contract for building commissioning. This project **does not have** a commitment of state funds and is proceeding at its own financial risk.

If you have any questions regarding this project, please contact your regional coordinator.

PROJECT INFORMATION

Project Name: ______________________
School District: ______________ No. ________ County: ______________
Address: ______________________ Contact Person: ______________
City: ______________________ Telephone: ______________
Zip Code: ______________________ Fax: ______________
E-Mail: ______________

SAMPLE

THIS PROJECT DOES NOT HAVE SECURED FUNDING

The district is proceeding at its own financial risk (WAC 180-27-057). The matchable amount of this project is limited to the eligible square footage, the maximum area cost allowance, and the priority standing of the project as determined pursuant to the state building assistance rules in effect upon receipt of this form (WAC 180-26-057).

TIME LIMIT

A complete D-7 Application to Proceed with Bid Opening must be received and approved by the Office of Superintendent of Public Instruction by the compliance due date and prior to the opening of bids for this project (WAC 180-29-107).

COMPLIANCE DUE DATE: ☐
(one year from approval date)

ELIGIBLE RELEASE DATE FOR THIS PROJECT MAY BE JULY 1, 2000

SUPERINTENDENT OF PUBLIC INSTRUCTION

Approval Date: ______________ ______________________

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School Facilities and Organization
Old Capitol Building, PO BOX 47200
OLYMPIA WA 98504-7200
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FORM D-7
APPLICATION TO PROCEED WITH BID OPENING

The D-7 is a two-page application requesting the Office of Superintendent of Public Instruction to grant secured funding status (WAC 180-29-107) or authority to proceed with bid opening for front-funded projects (WAC 180-27-057). If you have any questions regarding this form, please contact your regional coordinator.

PROJECT INFORMATION

Project Name: ______________________
School District: ______________ No. ______ County: ______________
Address: ______________ Contact Person: ______________
City: ______________ Telephone: ( ) ______________
Zip Code: ______________ Fax: ( ) ______________
E-Mail: ______________

DESIGN COST ESTIMATE

Total New Construction:	______	sf	From D-7 page 2 line 3 of A.
Total Modernization:	______	sf	From D-7 page 2 line 3 of B.
Total Nonmatchable Construction:	______	sf	From D-7 page 2 line 3 of C.
Tax Rate in Excess of Matchable 7.0%:	______	%	
New Construction Cost (Estimated):	$ ______		Total A from D-7 page 2.
Modernization Cost (Estimated):	$ ______		Total B from D-7 page 2.
Nonmatched Construction Cost (Estimated):	$ ______		Total C from D-7 page 2.
Other Nonmatchable Components (Estimated):	$ ______		Total D from D-7 page 2.
Educational Specifications Cost:	$ ______		Total cost for preparing ed specs.
Value Engineering Report Cost:	$ ______		Total cost of value engineering study.
Constructability Review Report Cost:	$ ______		Total cost of constructability review.
Building Commissioning Cost:	$ ______		Total cost from contract.
Energy Report Cost:	$ ______		Total cost of energy conservation report.
GA Energy Report Review Fee:	$ ______		Total cost of review.
A/E Fee New Construction:	$ ______		Total A/E fee from contract.
A/E Fee Modernization:	$ ______		Total A/E fee from contract.
A/E Fee Nonmatchable Construction:	$ ______		Total A/E fee from contract.
Construction Management Services:	$ ______		Total cost from contract.
Inspection and Testing Services: New	$ ______		From D-7 page 2 line 1 of E.
Mod	$ ______		From D-7 page 2 line 2 of E.
Nonmatchable	$ ______		From D-7 page 2 line 3 of E.

SAMPLE

Transmitted with this form are the following:

1. Architectural/engineering estimate of construction cost from D-7 page 2.
2. Contracts: A. Architectural and Engineering D. Value Engineering G. Energy Report
   B. Construction Management E. Constructability Review
   C. Educational Specifications F. Building Commissioning
3. Letters of approval of the construction documents from:
   A. Fire Marshal (local or state) C. Health Agency E. General Administration Energy Report
   B. Electrical (local or state) D. Building Official F. On-Site Sewage (if applicable)
4. Area analysis summary form, worksheets, and assignable square footage forms.
5. Complete listing of special inspections and testing (Section 1701 of the UBC).
6. Copies of value engineering and constructability review reports and board accepted implementation.
7. Contract documents forwarded by F.W. Dodge.
8. Certification by the architect of compliance with state building code.

Date: ______________ Signature: ______________________
Authorized District Personnel

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FORM D-7
ESTIMATE OF CONSTRUCTION COST

Page 2 of the D-7 is a cost estimate of construction to be completed and signed by the architect/engineer (WAC 180-29-085 The square footage on this form should match the area analysis form. If you have any questions regarding this form, please contact your regional coordinator.

PROJECT INFORMATION

Project Name: ____________________

School District: ____________________

Square Footage From Area Analysis Summary Form

A. NEW CONSTRUCTION:

1	______ sf	Base Bid	$ ______	
2	______ sf	Alternates	$ ______	
3	______ sf	Total Base Bid + Alternates	$ ______	
		7.0% Matchable Tax	$ ______	(On Total Base Bid + Alternates)
		Subtotal A	$ ______	
		Excess tax above 7.0%	$ ______	(On Total Base Bid + Alternates)
			Total A	$ ______

B. MODERNIZATION:

SAMPLE

1	______ sf	Base Bid	$ ______	
2	______ sf	Alternates	$ ______	
3	______ sf	Total Base Bid + Alternates	$ ______	
		7.0% Matchable Tax	$ ______	(On Total Base Bid + Alternates)
		Subtotal B	$ ______	
		Excess tax above 7.0%	$ ______	(On Total Base Bid + Alternates)
			Total B	$ ______

C. NONMATCHABLE CONSTRUCTION:

1	______ sf	Base Bid	$ ______	
2	______ sf	Alternates	$ ______	
3	______ sf	Total Base Bid + Alternates	$ ______	
		7.0% Matchable Tax	$ ______	(On Total Base Bid + Alternates)
		Subtotal C	$ ______	
		Excess tax above 7.0%	$ ______	(On Total Base Bid + Alternates)
			Total C	$ ______

D. OTHER NONMATCHABLE COMPONENTS:

Off-Site Work	$ ______	Off property roads, sewer, electrical hookups etc.
Building Demolition	$ ______	Existing building only (not interior work)
Hazardous Waste Abate.	$ ______	
Total of Nonmatch Components	$ ______	
7.0% Matchable Tax	$ ______	(On Total Nonmatch Components)
Excess tax above 7.0%	$ ______	(On Total Nonmatch Components)
	Total D	$ ______

PROJECT TOTAL $ ______
(Add All Totals A, B, C, D)

E. INSPECTION AND TESTING COST ESTIMATE:

1	New Construction	$ ______	Estimate cost for independent inspections/tests as
2	Modernization	$ ______	required by Section 1701 of the UBC.
3	Nonmatchable	$ ______	(Place these estimates on D-7 page 1)

Date: ______________ Signature: ______________
Architect

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FORM D-7
AREA ANALYSIS SUMMARY FORM

The D-7 Area Analysis Summary Form is used to summarize the gross square footage from the D-7 area analysis worksheets (WAC 180-27-019). Separate worksheets must be included for each type of construction and for additive or deductive alternates (including alternate bid number[s]). Alternates must also be separated by type of construction.

The D-7 Area Analysis Summary Form must also include 8 1/2" x 11" plan sheet(s) with area numbers and type of construction (new construction, modernization, nonmatchable) indicated.

If you have any questions regarding this form, please contact your regional coordinator.

PROJECT INFORMATION

Project Name: ______________________________

School District: ______________________________

A. NEW CONSTRUCTION: including New-in-Lieu Replacement

1. Base Bid Area: ____________________ sf (from Worksheet ___ of ___)
   Enter on line 1 of A on Form D-7 page 2
2. Alternate New Bids: ____________________ sf (from Worksheet ___ of ___)
   Enter on line 2 of A on Form D-7 page 2
3. Total New Construction: ____________________ sf
   Enter on line 3 of A on Form D-7 page 2

SAMPLE

B. MODERNIZATION: of existing building areas

1. Base Bid Area: ____________________ sf (from Worksheet ___ of ___)
   Enter on line 1 of B on Form D-7 page 2
2. Modernization Alternates: ____________________ sf (from Worksheet ___ of ___)
   Enter on line 2 of B on Form D-7 page 2
3. Total Modernization: ____________________ sf
   Enter on line 3 of B on Form D-7 page 2

C. NONMATCHABLE CONSTRUCTION:

Alterations in ineligible buildings and/or areas, or noninstructional areas (WAC 180-27-019)

1. Base Bid Area: ____________________ sf (from Worksheet ___ of ___)
   Enter on line 1 of C on Form D-7 page 2
2. Alteration Alternates: ____________________ sf (from Worksheet ___ of ___)
   Enter on line 2 of C on Form D-7 page 2
3. Total Alteration Area ____________________ sf
   Enter on line 3 of C on Form D-7 page 2

1. Number of regular classroom teaching stations: _____

2. Number of specially designated teaching stations for students with disabilities: _____

Prepared by: ______________________

Date Prepared: ______________ Architecture/Engineering Firm: ______________________

D-7 Area Analysis Summary Form (Rev. 3/00)

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FORM D-7
AREA ANALYSIS WORKSHEET

The purpose of the D-7 Area Analysis Worksheet is to identify areas of construction by project and bid type (WAC 180-27-019). List only one project type and bid type per worksheet.

PROJECT INFORMATION

Project Name:____________________ School District:______________________________

PROJECT TYPE: (check one type only for each worksheet)

A. New Construction: ☐ **B. Modernization:** ☐ **C. Nonmatchable Construction:** ☐

BID TYPE: (check one type only for each worksheet)

1. Base Bid: ☐ **2. Alternate Bid:** ☐

Area No.	Area Name (Classrooms, Gym, Bldg. Numbers, etc.)	Dimensions (feet/decimal feet) (Length)	(Width)	Area Factor Full	One-half	Area Square Feet
	EXAMPLE					
1	Classroom Wing	35.5'	120.33'	1	☐	4,272
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	

SAMPLE

Date:________________ Circle: Project Type: A B C Bid Type: 1 2 Total ______________

A/E Firm:________________________ Prepared By:______________________ Worksheet ____of____

D-7 Area Analysis Worksheet (Rev. 3/00)

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FORM D-7
SUMMARY OF ASSIGNABLE SQUARE FEET (ASF) BY BUILDING

The ASF form identifies the type of space resulting from the project (often referred to as net square footage). The information is used for ranking projects should inadequate funding require the implementation of a priority system. The project architect completes and signs a form for each type of construction (i.e., new or modernization). If more than one page is submitted, a separate summary page must be completed. A separate column is used for each building or area.

Instructions for assigning individual spaces are attached.

PROJECT INFORMATION

Project Name:________________________ School District:________________________
Architectural Firm:______________________________ A/E Tel: (____)________________
Project Architect:______________________________ A/E Fax: (____)________________
A/E E-Mail: ____________________

PROJECT TYPE (one page per type):

A. New: ☐ **B. Modernization:** ☐ **C. Nonmatchable Construction:** ☐

SAMPLE

	Building and/or Area Name (s)					TOTAL
1. DIRECT INSTRUCTIONAL SPACE	▨	▨	▨	▨	▨	▨
A. Classrooms						
B. Laboratories						
C. Library						
D. Learning Resources						
E. Physical Education						
Share of Multipurpose						
					Total	

2. INSTRUCTIONAL SUPPORT SPACE	▨	▨	▨	▨	▨	▨
A. Assembly						
B. Service and Support						
C. Student Services						
D. Office Space						
Share of Multipurpose						
					Total	

3. PROGRAM SUPPORT SPACE	▨	▨	▨	▨	▨	▨
A. Cafeteria/Food Service						
B. General Support Space						
C. Covered Play Area						
Share of Multipurpose						
					Total	

Date:______________ Prepared By:______________________________ Page___of___

D-7 Summary of Assignable SF (Rev. 3/00)

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FORM D-7
ASF ATTACHMENT
SUMMARY OF ASSIGNABLE SQUARE FEET (ASF) INSTRUCTIONS
SPACE INVENTORY CATEGORIES

This is a two page attachment for the D-7 Summary of Assignable Square Feet (ASF) form. Square footage for each project type is to be identified according to the following three categories; Direct Instructional Space, Instructional Support Space, and Program Support Space. Shared or other space such as multi-purpose facilities used for two or more functions are allocated by prorating the hours of use per week among the three categories. In addition, there is another type of space, which is called non-assignable spaces. These are not to be counted or included on the Summary of Assignable Square Footage form.

1. DIRECT INSTRUCTIONAL SPACE

A. Classrooms
Rooms used by classes, which do not require special purpose equipment for student use or rooms used as an extension of activities of the classroom. Includes lecture rooms, group music rooms, lecture-demonstration rooms and seminar rooms.

B. Laboratories
Rooms used for classes, which require special purpose equipment for student participation, experimentation, observation, or practice in a field of study. Includes science labs, language labs, music practice rooms, computer and keyboard labs, and vocational labs.

SAMPLE

C. Library Space
Facilities used to provide storage for books and audio-visual materials and areas for individual study. Includes reading rooms, study rooms, circulation desk, card catalog, microfilm processing, and audio-visual record playback areas.

D. Learning Resources
Rooms used for the production and distribution of audio-visual, radio and TV materials and for the operation of equipment for TV studios, radio studios, graphic library, tape library, control room, video tape recorder room, and recording room.

E. Physical Education Teaching Space
Facilities used for physical education and athletics. Includes gymnasium, basketball courts, handball courts, swimming pool, wrestling rooms, etc. and related service areas such as locker rooms and associated lavatories. Excludes spectator seating, ticket booths, etc.

2. INSTRUCTIONAL SUPPORT SPACE

A. Assembly
Facilities including theaters, concert halls and related service areas such as checkrooms, coatrooms, projection rooms, storage areas, control rooms, etc.

B. Service and Support
Service areas directly related to instruction such as projection rooms, preparation rooms, resource rooms, coatrooms, and rooms used to store classroom, laboratory, P.E. and library supplies and equipment.

2. INSTRUCTIONAL SUPPORT SPACE (continued)

C. Student Services

Facilities used by students for health services, clubs, counseling, etc. Includes counseling rooms, lounge areas, detention rooms, student health and related service areas such as closets, equipment rooms, dispensaries, etc.

D. Office Space

Rooms used by faculty, staff, or students working at desks and rooms used for nonclass group meetings. Includes offices, conference rooms, and related service areas such as vaults, mimeograph rooms, interview rooms, office supply rooms, closets, etc.

3. PROGRAM SUPPORT SPACE

A. Cafeteria/Food Service

Facilities used for dining and related storage and preparation.

B. General Support Space

Areas used for institutionwide services. Includes data processing areas, maintenance areas, vehicle storage areas, central receiving areas, and related service areas such as supply storage areas, closets, equipment rooms, etc.

C. Covered Play Areas (Count at 1/2 SF)

Facilities providing covered play space required to be counted as 1/2 area by School Facilities Procedures Manual, Chapter 3.

SAMPLE

Other (to be allocated to above categories)

Multipurpose

Facilities used for two or more of the following functions: physical education (1E), assembly (2A), and/or cafeteria (3A). **NOTE:** Allocate on the basis of proportion of hours of use per week.

Nonassignable Spaces (do not enter on ASF form)

The following space types should not be included in the totals.

- Hallways, stairwells and other circulation space.
- Mechanical rooms.
- Janitorial closets.
- Restrooms unless accessed only by a classroom or included in a locker room.
- Structural space, e.g., the thickness of interior and exterior walls.

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FORM D-8
AUTHORIZATION TO PROCEED WITH BID OPENING WITH SECURED FUNDING STATUS

The D-8 is notification that the Office of Superintendent of Public Instruction has granted secured funding status for project. The district is authorized to proceed with the bid opening for this project. This secured funding status will e days from the issuance date of this D-8 unless a complete D-9 Application for Authorization to Sign Contracts is received by the Office of Superintendent of Public Instruction.

If you have any questions regarding this project, please contact your regional coordinator.

PROJECT INFORMATION

Project Name: ____________________
School District: ____________________ No. County: ____________________
Address: ____________________ Contact Person: ____________________
City: ____________________ Telephone: ____________________
Zip Code: ____________________ Fax: ____________________
E-Mail: ____________________

APPROVED PROJECT INFORMATION

Project No: 345- under provision of Chapter 379, Laws of 1999

New Construction:	0 sf	(Estimated)	Area Cost Allowance:	$0.00
Modernization:	0 sf		Grade Span:	K-6
New-in-Lieu of Mod:	0 sf	1999	State Match Ratio Applie	0.00%
			Equipment % allowance	2.00%

FINANCIAL ANALYSIS ------ Based on data from the D-7 -----------

SAMPLE

	NEW UNHOUSED	MODERNIZATION	NEW-IN-LIEU
TOTAL AREA:	0	0	0
EXCESS AREA:	[illegible]	[illegible]	0
CONSTRUCTION CC	$0.00	$0.00	$0.00
MATCHABLE TAX:	$0.00	$0.00	$0.00
TOTAL COST:	$0.00	$0.00	$0.00
COST/SF:	$0.00	$0.00	$0.00

Matchable Tax Rate:	7.00%	Local Tax Rate:	0.00%
A/E Fee New Construction:	0	Ed. Spec. Cost:	0
A/E Fee Modernization:	0	Value Eng. Cost:	0
A/E Fee New-in-Lieu:	0	Constr. Review Co	0
Construction Management Cost:	0	Bldg. Commiss. Cc	0
		Energy Report Cos	0
		GA Energy Review	0

	PROJECT TOTAL	=	STATE SHARE	+	LOCAL SHARE
1. New Construction:	$0.00		$0.00		$0.00
2. New Construction Excess:	$0.00		**********************		$0.00
3. Cost Savings Incentive:	***********************		$0.00		$0.00
4. Modernization Cost:	$0.00		$0.00		$0.00
5. Modernization Excess:	$0.00		**********************		$0.00
6. New-in-Lieu Construction Cost:	$0.00		$0.00		$0.00
7. New-in-Lieu Excess:	$0.00		**********************		$0.00
8. Tax Excess:	$0.00		**********************		$0.00
SUBTOTAL	$0.00		$0.00		$0.00

School District: 0

Project Name: 0

	PROJECT TOTAL	=	STATE SHARE	+	LOCAL SHARE
SUBTOTAL (from Page 1)	$0.00		$0.00		$0.00
9. A/E Fee New Construction Matchable:	$0.00		$0.00		$0.00
10. A/E Fee New Construction Excess:	$0.00		**********************		$0.00
11. A/E Fee Modernization Matchable:	$0.00		$0.00		$0.00
12. A/E Fee Modernization Excess:	$0.00		**********************		$0.00
13. A/E Fee New-in-Lieu Matchable:	$0.00		$0.00		$0.00
14. A/E Fee New-in-Lieu Excess:	$0.00		**********************		$0.00
15. Construction Management Matchable:	$0.00		$0.00		$0.00
16. Construction Management Excess:	$0.00		**********************		$0.00
17. Educational Specifications Matchable:	$0.00		$0.00		$0.00
18. Educational Specifications Excess:	$0.00		**********************		$0.00
19. Value Engineering Matchable:	$0.00		$0.00		$0.00
20. Value Engineering Excess:	$0.00		**********************		$0.00
21. Constructability Review Matchable:	$0.00		$0.00		$0.00
22. Constructability Review Excess:	$0.00		**********************		$0.00
23. Building Commissioning Matchable:	$0.00		$0.00		$0.00
24. Building Commissioning Excess:	$0.00		**********************		$0.00
25. Energy Report Matchable:	$0.00		$0.00		$0.00
26. Energy Report Excess:	$0.00		**********************		$0.00
27. GA Energy Report Review Fee:	$0.00		$0.00		$0.00
SUBTOTAL	$0.00		$0.00		$0.00
28. Inspection and Testing ESTIMATE Ne	$0.00		$0.00		$0.00
29. Inspection and Te Instruction (WAC 18	$0.00		$0.00		$0.00
30. Insp/Testing ESTIMATE Nonmatchabl	$0.00		**********************		$0.00
31. Equipment Allowance-New or New-in-	$0.00		$0.00		$0.00
32. Equipment Allowance-Modernizatio	$0.00		$0.00		$0.00
33. Nonmatchable Construction:	$0.00		**********************		$0.00
34. Other Nonmatchable Components:	$0.00		**********************		$0.00
TOTAL PROJECT COST	$0.00		$0.00		$0.00

SAMPLE

THIS PROJECT HAS SECURED FUNDING AND A COMMITMENT OF STATE FUNDS

The dollar amounts shown above are based on cost estimates provided by the district on D-7. The final specific dollar amounts for this project will be determined after a complete D-9 Application for Authorization to Sign Contracts is received and approved by the Office of Superintendent of Public

TIME LIMIT

A complete D-9 Application for Authorization to Sign Contracts must be received and approved by the Office of Superintendent of Public Instruction by the compliance due date and prior to the signing of contracts (WAC 180-29-108 and 180-29-110).

FINAL COMPLIANCE DUE DATE IS: ☐

(90 days from approval date)

ELIGIBLE RELEASE DATE FOR THIS PROJECT IS JULY 1, 2000

SUPERINTENDENT OF PUBLIC INSTRUCTION

Approval Date: ______________ ____________________________________

OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
School Facilities and Organization
Old Capitol Building, PO BOX 47200
OLYMPIA WA 98504-7200
(360) 753-6702 TTY (360) 664-3631

FORM D-8(1)
AUTHORIZATION TO PROCEED WITH BID OPENING FRONT-FUNDED STATUS

The D-8(1) is notification that the Office of Superintendent of Public Instruction has received and approved the school district Application to Proceed with Bid Opening (D-7). The district is authorized to proceed with the bid opening based on the district's request to front fund this project. This project **does not have** a commitment of state funds and is proceeding at its own financial risk.

If you have any questions regarding this project, please contact your regional coordinator.

PROJECT INFORMATION

Project Name:
School District: No.
County:
Address:
Contact Person:
City:
Telephone:
Zip Code:
Fax:
E-Mail:

APPROVED PROJECT INFORMATION

Project No: 345- under provision of Chapter 379, Laws of 1999

New Construction:	0	sf	(Estimated)	Area Cost Allowance:	$0.00
Modernization:	0	sf		Grade Span:	K-6
New-in-Lieu of Mod:	0	sf	1999	State Match Ratio Applied:	0.00%
				Equipment % allowance:	2.00%

FINANCIAL ANALYSIS ------ Based on data from the D-7 ------

SAMPLE

	NEW UNHOUSED	MODERNIZATION	NEW-IN-LIEU
TOTAL AREA:	0	0	0
EXCESS AREA:	0	0	0
CONSTRUCTION CC	$0.00	$0.00	$0.00
MATCHABLE TAX:	$0.00	$0.00	$0.00
TOTAL COST:	$0.00	$0.00	$0.00
COST/SF:	$0.00	$0.00	$0.00

Matchable Tax Rate:	7.00%	Local Tax Rate:	0.00%
A/E Fee New Construction:	0	Ed. Spec. Cost:	0
A/E Fee Modernization:	0	Value Eng. Cost:	0
A/E Fee New-in-Lieu:	0	Constr. Review Cost:	0
Construction Management Cost:	0	Bldg. Commiss. Cost:	0
		Energy Report Cost:	0
		GA Energy Review:	0

	PROJECT TOTAL	=	STATE SHARE	+	LOCAL SHARE
1. New Construction:	$0.00		$0.00		$0.00
2. New Construction Excess:	$0.00		**********************		$0.00
3. Cost Savings Incentive:	**********************		$0.00		$0.00
4. Modernization Cost:	$0.00		$0.00		$0.00
5. Modernization Excess:	$0.00		**********************		$0.00
6. New-in-Lieu Construction Cost:	$0.00		$0.00		$0.00
7. New-in-Lieu Excess:	$0.00		**********************		$0.00
8. Tax Excess:	$0.00		**********************		$0.00
SUBTOTAL	$0.00		$0.00		$0.00

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School District: 0

Project Name: 0

	PROJECT TOTAL	=	STATE SHARE	+	LOCAL SHARE
SUBTOTAL (from Page 1)	$0.00		$0.00		$0.00
9. A/E Fee New Construction Matchable	$0.00		$0.00		$0.00
10. A/E Fee New Construction Excess:	$0.00		**********************		$0.00
11. A/E Fee Modernization Matchable:	$0.00		$0.00		$0.00
12. A/E Fee Modernization Excess:	$0.00		**********************		$0.00
13. A/E Fee New-in-Lieu Matchable:	$0.00		$0.00		$0.00
14. A/E Fee New-in-Lieu Excess:	$0.00		**********************		$0.00
15. Construction Management Matchable:	$0.00		$0.00		$0.00
16. Construction Management Excess:	$0.00		**********************		$0.00
17. Educational Specifications Matchable:	$0.00		$0.00		$0.00
18. Educational Specifications Excess:	$0.00		**********************		$0.00
19. Value Engineering Matchable:	$0.00		$0.00		$0.00
20. Value Engineering Excess:	$0.00		**********************		$0.00
21. Constructability Review Matchable:	$0.00		$0.00		$0.00
22. Constructability Review Excess:	$0.00		**********************		$0.00
23. Building Commissioning Matchable:	$0.00		$0.00		$0.00
24. Building Commissioning Excess:	$0.00		**********************		$0.00
25. Energy Report Matchable:	$0.00		$0.00		$0.00
26. Energy Report Excess:	$0.00		**********************		$0.00
27. GA Energy Report Review Fee:	$0.00		$0.00		$0.00
SUBTOTAL	$0.00		$0.00		$0.00
28. Inspection and Testing ESTIMATE Ne	$0.00		$0.00		$0.00
29. Inspection and Testing ESTIMATE Mc	$0.00		$0.00		$0.00
30. Insp/Testing ESTIMATE Nonmatchabl	$0.00		**********************		$0.00
31. Equipment Allowance-New or New-in-	$0.00		$0.00		$0.00
32. Equipment Allowance-Modernization	$0.00		$0.00		$0.00
33. Nonmatchable Construction:	$0.00		**********************		$0.00
34. Other Nonmatchable Components:	$0.00		**********************		$0.00
TOTAL PROJECT COST	$0.00		$0.00		$0.00

SAMPLE

THIS PROJECT DOES NOT HAVE SECURED FUNDING

The district is proceeding at its own financial risk (WAC 180-27-057). The dollar amounts shown above are based only on cost estimates provided by the district on D-7. The final specific dollar amounts for this project will be determined after a complete D-9 Application for Authorization to Sign Contracts is received and approved by the Office of Superintendent of Public Instruction (WAC 180-29-110 and 180-29-115).

TIME LIMIT

A complete D-9 Application for Authorization to Sign Contracts must be received and approved by the Office of Superintendent of Public Instruction by the compliance due date and prior to the signing of contracts (WAC 180-29-108 and 180-29-110).

FINAL COMPLIANCE DUE DATE IS: ☐

(90 days from approval date)

ELIGIBLE RELEASE DATE FOR THIS PROJECT MAY BE JULY 1, 2000

SUPERINTENDENT OF PUBLIC INSTRUCTION

Approval Date: ____________

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School Facilities and Organization
Old Capitol Building, PO BOX 47200
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FORM D-9

APPLICATION FOR AUTHORIZATION TO SIGN CONTRACTS

The D-9 is a two-page application requesting the Office of Superintendent of Public Instruction to grant authorization to sign contracts for construction (WAC 180-29-110). If you have any questions regarding this form, please contact your regional coordinator.

PROJECT INFORMATION

Project Name: ____________________
School District: __________ No. ____ County: ____________________
Address: ____________________ Contact Person: ____________________
City: ____________________ Telephone: ( ) ____________________
Zip Code: ____________________ Fax: ( ) ____________________
E-Mail: ____________________

PROJECT COST

SAMPLE

Total New Construction:	____________	sf	Base bid + accepted alternates.
Total Modernization:	____________	sf	Base bid + accepted alternates.
Total Nonmatchable Construction:	____________	sf	Base bid + accepted alternates.
Tax Rate in Excess of Matchable 7.0%:	____________	%	
New Construction Cost (from bid documents):	$ ____________		Total A from D-9 page 2.
Modernization Cost (from bid documents):	$ ____________		Total B from D-9 page 2.
Nonmatched Construction Cost (from bid):	$ ____________		Total C from D-9 page 2.
Other Nonmatchable Components (from bid):	$ ____________		Total D from D-9 page 2.
Educational Specifications Cost:	$ ____________		Actual cost (include copy of final billing).
Value Engineering Report Cost:	$ ____________		Actual cost (include copy of final billing).
Constructability Review Report Cost:	$ ____________		Actual cost (include copy of final billing).
Building Commissioning Cost:	$ ____________		Total cost from contract.
Energy Report Cost:	$ ____________		Actual cost (include copy of final billing).
GA Energy Report Review Fee:	$ ____________		Actual cost (include copy of final billing).
A/E Fee New Construction:	$ ____________		Total A/E fee (include fee calculation).
A/E Fee Modernization:	$ ____________		Total A/E fee (include fee calculation).
A/E Fee Nonmatchable Construction:	$ ____________		Total A/E fee (include fee calculation).
Construction Management Services:	$ ____________		Total C/M fee (include fee calculation).
Inspection and Testing Services: New	$ ____________		From D-7 page 2, line 1 of E.
Mod	$ ____________		From D-7 page 2, line 2 of E.
Nonmatchable	$ ____________		From D-7 page 2, line 3 of E.

Transmitted with this form are the following:

1. Each advertisement for bid (two are required) (WAC 180-29-105).
2. Tabulated statement of all bids received.
3. School district recommendation for award of contract, including accepted alternates.
4. Copy of the form of proposal of the recommended bidder, including list of subcontractors per RCW 39.30.060.
5. Name and addresses of all bidders.
6. Statement of the specific amount of local and/or other disbursable funds available for funding this project.
7. Resolution with signature(s) of authorized district personnel (unless previously submitted).
8. Resolution of intent to construct project (WAC 180-29-130).
9. MODERNIZATION PROJECTS ONLY: 5-year use/20-year life resolution is required (WAC 180-33-015 and 180-33-03
10. Final billings for educational specifications, value engineering, constructability review, energy report, GA energy review fee, an A/E fee calculation, and a C/M fee calculation.

Date: ____________ Signature: ____________________
Authorized District Personnel

BEST COPY AVAILABLE

OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
School Facilities and Organization
Old Capitol Building, PO BOX 47200
OLYMPIA WA 98504-7200
(360) 753-6702 TTY (360) 664-3631

FORM D-9
ACTUAL CONSTRUCTION COSTS

Page 2 of the D-9 is a summary of construction bid costs to be completed and signed by the **contractor**. If you have any questions regarding this form, please contact your regional coordinator.

PROJECT INFORMATION

Project Name: ____________________

School District: ____________________

Construction Costs Based on Actual Bid Award

A. NEW CONSTRUCTION:

1	Base Bid	$		
2	Alternates	$		
3	Total Base Bid + Alternates	$		
	7.0% Matchable Tax	$	(On Total Base Bid + Alternates)	
	Subtotal A	$		
	Excess tax above 7.0%	$	(On Total Base Bid + Alternates)	
			Total A	$

B. MODERNIZATION:

SAMPLE

1	Base Bid	$		
2	Alternates	$		
3	Total Base Bid + Alternates	$		
	7.0% Matchable Tax	$	(On Total Base Bid + Alternates)	
	Subtotal B	$		
	Excess tax above 7.0%	$	(On Total Base Bid + Alternates)	
			Total B	$

C. NONMATCHABLE CONSTRUCTION:

1	Base Bid	$		
2	Alternates	$		
3	Total Base Bid + Alternates	$		
	7.0% Matchable Tax	$	(On Total Base Bid + Alternates)	
	Subtotal C	$		
	Excess tax above 7.0%	$	(On Total Base Bid + Alternates)	
			Total C	$

D. OTHER NONMATCHABLE COMPONENTS:

Off-Site Work	$	Off property roads, sewer, electrical hookups, etc.	
Building Demolition	$	Existing building only (not interior work)	
Hazardous Waste Abatement	$		
Total of Nonmatch Components	$		
7.0% Matchable Tax	$	(On Total Nonmatch Components)	
Excess tax above 7.0%	$	(On Total Nonmatch Components)	
		Total D	$

PROJECT TOTAL $ ____________________
(Add All Totals A, B, C, D)

Date: ____________________ Contractor's Signature: ____________________

Company Name: ____________________

OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
School Facilities and Organization
Old Capitol Building, PO BOX 47200
OLYMPIA WA 98504-7200
(360) 753-6702 TTY (360) 664-3631

FORM D-10
AUTHORIZATION TO SIGN CONTRACTS WITH SECURED FUNDING STATUS

The D-10 is notification that the Office of Superintendent of Public Instruction has received and approvec Application for Authorization to Sign Contracts (D-9). The district is authorized to sign contracts for cons project **has** a commitment that state funds are available.

If you have any questions regarding this project, please contact your regional coordinator.

PROJECT INFORMATION

Project Name:		Building No.	
School District:	No.	County:	
Address:		Contact Person:	
City:		Telephone:	
Zip Code:		Fax:	
		E-Mail:	

APPROVED PROJECT INFORMATION

Project No: 345- under provision of Chapter 379, Laws of 1999

New Construction:	0 sf		Area Cost Allowance:	$0.00
Modernization:	0 sf		Grade Span:	K-6
New-in-Lieu of Mod:	0 sf	1999	State Match Ratio Applie	0.00%
			Equipment % allowance:	2.00%

FINANCIAL ANALYSIS ------ Based on data from the D-9 -----------

	NEW UNHOUSED	MODERNIZATION	NEW-IN-LIEU
TOTAL AREA:	0	0	0
EXCESS AREA:	0	0	0
CONSTRUCTION CO:	$0.00	$0.00	$0.00
MATCHABLE TAX:	$0.00	$0.00	$0.00
TOTAL COST:	$0.00	$0.00	$0.00
COST/SF:	$0.00	$0.00	$0.00

SAMPLE

Matchable Tax Rate:	7.00%	Local Tax Rate:	0.00%
A/E Fee New Construction:	0	Ed. Spec. Cost:	0
A/E Fee Modernization:	0	Value Eng. Cost:	0
A/E Fee New-in-Lieu:	0	Constr. Review Cos	0
Construction Management Cost:	0	Bldg. Commiss. Cos	0
		Energy Report Cost:	0
		GA Energy Review:	0

	PROJECT TOTAL	=	STATE SHARE	+	LOCAL SHARE
1. New Construction:	$0.00		$0.00		$0.00
2. New Construction Excess:	$0.00		************************		$0.00
3. Cost Savings Incentive:	************************		$0.00		$0.00
4. Modernization Cost:	$0.00		$0.00		$0.00
5. Modernization Excess:	$0.00		************************		$0.00
6. New-in-Lieu Construction Cost:	$0.00		$0.00		$0.00
7. New-in-Lieu Excess:	$0.00		************************		$0.00
8. Tax Excess:	$0.00		************************		$0.00
SUBTOTAL	$0.00		$0.00		$0.00

School District: 0
Project Name: 0

	PROJECT TOTAL	=	STATE SHARE	+	LOCAL SHARE
SUBTOTAL (from Page 1)	$0.00		$0.00		$0.00
9. A/E Fee New Construction Matchable:	$0.00		$0.00		$0.00
10. A/E Fee New Construction Excess:	$0.00		***********************		$0.00
11. A/E Fee Modernization Matchable:	$0.00		$0.00		$0.00
12. A/E Fee Modernization Excess:	$0.00		***********************		$0.00
13. A/E Fee New-in-Lieu Matchable:	$0.00		$0.00		$0.00
14. A/E Fee New-in-Lieu Excess:	$0.00		***********************		$0.00
15. Construction Management Matchable:	$0.00		$0.00		$0.00
16. Construction Management Excess:	$0.00		***********************		$0.00
17. Educational Specifications Matchable:	$0.00		$0.00		$0.00
18. Educational Specifications Excess:	$0.00		***********************		$0.00
19. Value Engineering Matchable:	$0.00		$0.00		$0.00
20. Value Engineering Excess:	$0.00		***********************		$0.00
21. Constructability Review Matchable:	$0.00		$0.00		$0.00
22. Constructability Review Excess:	$0.00		***********************		$0.00
23. Building Commissioning Matchable:	$0.00		$0.00		$0.00
24. Building Commissioning Excess:	$0.00		***********************		$0.00
25. Energy Report Matchable:	$0.00		$0.00		$0.00
26. Energy Report Excess:	$0.00		***********************		$0.00
27. GA Energy Report Review Fee:	$0.00		$0.00		$0.00
SUBTOTAL	$0.00		$0.00		$0.00
28. Inspection and Testing ESTIMATE Ne	$0.00		$0.00		$0.00
29. Inspection and Testing ESTIMATE Mc	$0.00		$0.00		$0.00
30. Insp/Testing ESTIMATE Nonmatchabl	$0.00		***********************		$0.00
31. Equipment Allowance-New or New-in-	$0.00		$0.00		$0.00
32. Equipment Allowance-Modernization:	$0.00		$0.00		$0.00
33. Nonmatchable Construction:	$0.00		***********************		$0.00
34. Other Nonmatchable Components:	$0.00		***********************		$0.00
TOTAL PROJECT COST	$0.00		$0.00		$0.00

SAMPLE

CONTRACT INFORMATION

ARCHITECTURAL AND ENGINEERING SERVICES:

Firm Name:
Address:
Telephone:
Fax:

CONSTRUCTION MANAGEMENT SERVICES:

Firm Name:
Address:
Telephone:
Fax:

GENERAL CONTRACTOR:

Firm Name: Total Contract Amo **$0**
Address:
Telephone:
Fax:

SUPERINTENDENT OF PUBLIC INSTRUC

Approval Date:

OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
School Facilities and Organization
Old Capitol Building, PO BOX 47200
OLYMPIA WA 98504-7200
(360) 753-6702 TTY (360) 664-3631

FORM D-10(1)
AUTHORIZATION TO SIGN CONTRACTS
FRONT FUNDED STATUS

The D-10(1) is notification that the Office of Superintendent of Public Instruction has received and approved the schoc district Application for Authorization to Sign Contracts (D-9). The district is authorized to sign contracts for constructio based on the district's request to front-fund this project. This project **does not have** a commitment of state funds and proceeding at its own financial risk (WAC 180-27-057).

If you have any questions regarding this project, please contact your regional coordinator.

PROJECT INFORMATION

Project Name: ____________________
School District: ____________________ No.
Address: ____________________
City: ____________________
Zip Code: ____________________

Building No. ____________________
County: ____________________
Contact Person: ____________________
Telephone: ____________________
Fax: ____________________
E-Mail: ____________________

APPROVED PROJECT INFORMATION

Project No: 345- under provision of Chapter 379, Laws of 1999

New Construction:	0 sf		Area Cost Allowance:	$0.00
Modernization:	0 sf		Grade Span:	K-6
New-in-Lieu of Mod:	0 sf	1999	State Match Ratio Applie	0.00%
			Equipment % allowance:	2.00%

FINANCIAL ANALYSIS ------ Based on data from the D-9 -----------

SAMPLE

	NEW UNHOUSED	MODERNIZATION	NEW-IN-LIE
TOTAL AREA:	0	0	0
EXCESS AREA:	0	0	0
CONSTRUCTION CO	$0.00	$0.00	$0.00
MATCHABLE TAX:	$0.00	$0.00	$0.00
TOTAL COST:	$0.00	$0.00	$0.00
COST/SF:	$0.00	$0.00	$0.00

Matchable Tax Rate:	7.00%	Local Tax Rate:	0.00%
A/E Fee New Construction:	0	Ed. Spec. Cost:	0
A/E Fee Modernization:	0	Value Eng. Cost:	0
A/E Fee New-in-Lieu:	0	Constr. Review Cos	0
Construction Management Cost:	0	Bldg. Commiss. Cos	0
		Energy Report Cost:	0
		GA Energy Review:	0

	PROJECT TOTAL	=	STATE SHARE	+	LOCAL SHARE
1. New Construction:	$0.00		$0.00		$0.00
2. New Construction Excess:	$0.00		**********************		$0.00
3. Cost Savings Incentive:	**********************		$0.00		$0.00
4. Modernization Cost:	$0.00		$0.00		$0.00
5. Modernization Excess:	$0.00		**********************		$0.00
6. New-in-Lieu Construction Cost:	$0.00		$0.00		$0.00
7. New-in-Lieu Excess:	$0.00		**********************		$0.00
8. Tax Excess:	$0.00		**********************		$0.00
SUBTOTAL	$0.00		$0.00		$0.00

School District: 0
Project Name: 0

	PROJECT TOTAL	= STATE SHARE	+ LOCAL SHARE
SUBTOTAL (from Page 1)	$0.00	$0.00	$0.00
9. A/E Fee New Construction Matchable:	$0.00	$0.00	$0.00
10. A/E Fee New Construction Excess:	$0.00	***********************	$0.00
11. A/E Fee Modernization Matchable:	$0.00	$0.00	$0.00
12. A/E Fee Modernization Excess:	$0.00	***********************	$0.00
13. A/E Fee New-in-Lieu Matchable:	$0.00	$0.00	$0.00
14. A/E Fee New-in-Lieu Excess:	$0.00	***********************	$0.00
15. Construction Management Matchable:	$0.00	$0.00	$0.00
16. Construction Management Excess:	$0.00	***********************	$0.00
17. Educational Specifications Matchable:	$0.00	$0.00	$0.00
18. Educational Specifications Excess:	$0.00	***********************	$0.00
19. Value Engineering Matchable:	$0.00	$0.00	$0.00
20. Value Engineering Excess:	$0.00	***********************	$0.00
21. Constructability Review Matchable:	$0.00	$0.00	$0.00
22. Constructability Review Excess:	$0.00	***********************	$0.00
23. Building Commissioning Matchable:	$0.00	$0.00	$0.00
24. Building Commissioning Excess:	$0.00	***********************	$0.00
25. Energy Report Matchable:	$0.00	$0.00	$0.00
26. Energy Report Excess:	$0.00	***********************	$0.00
27. GA Energy Report Review Fee:	$0.00	$0.00	$0.00
SUBTOTAL	$0.00	$0.00	$0.00
28. Inspection and Testing ESTIMATE Ne	$0.00	$0.00	$0.00
29. Inspection and Testing ESTIMATE Mc	$0.00	$0.00	$0.00
30. Insp/Testing ESTIMATE Nonmatchabl	$0.00	***********************	$0.00
31. Equipment Allowance-New or New-in-	$0.00	$0.00	$0.00
32. Equipment Allowance-Modernization	$0.00	$0.00	$0.00
33. Nonmatchable Construction:	$0.00	***********************	$0.00
34. Other Nonmatchable Components:	$0.00	***********************	$0.00
TOTAL PROJECT COST	$0.00	$0.00	$0.00

SAMPLE

CONTRACT INFORMATION

ARCHITECTURAL AND ENGINEERING SERVICES:
Firm Name:
Address:
Telephone:
Fax:

CONSTRUCTION MANAGEMENT SERVICES:
Firm Name:
Address:
Telephone:
Fax:

GENERAL CONTRACTOR:
Firm Name: Total Contract Amou **$0**
Address:
Telephone:
Fax:

SUPERINTENDENT OF PUBLIC INSTRUCTION

Approval Date:

OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
School Facilities and Organization
Old Capitol Building, PO BOX 47200
OIYMPIA WA 98504-7200
(360) 753-6734 TYY (360) 664-3631

FORM D-11
APPLICATION TO RELEASE RETAINAGE

The D-11 is an application requesting the Office of Superintendent of Public Instruction to grant permission to release retainage/retainage bond to the general contractor. (Refer to Chapter 10 of the *School Facilities Manual.*)

PROJECT INFORMATION

Project Name: ______________________
School District: ______________________ No. ______
Address: ______________________
City: ______________________
Zip Code: ______________________
Contractor: ______________________

Project Number: ______________________
County: ______________________
Contact Person: ______________________
Telephone: ______________________
Fax: ( )______________________
E-Mail: ______________________

Transmitted with this form are documents required to be on file with OSPI before retainage may be released (WAC 180-29-165):

Due within 30 days following official acceptance of the project as complete by the school board:

1. Properly executed state invoice voucher, Form SPI F717A (WAC 180-29-145).
2. Architect/engineer certificate(s) of completion (WAC 180-29-155).
3. Architect's statement of square footage as per (WAC 180-29-155).
4. Buliding commissioning report with acceptance (WAC 180-2[illegible]-160)
5. School district board of directors' resolution of final acceptance signed by the authorized agent of the district (WAC 180-29-1[illegible]0)

SAMPLE

Due within 60 days following official acceptance of the project as complete by the school board:

1. Certification by the authorized agent of the school district that the district has on file all affidavits of wages paid in compliance with RCW 39.12.040.
2. Dated not less than 45 days following acceptance of the project by the school district, a signed statement by the authorized agent of the school district that no lien(s) is on file with the school district or a certified list of each lien is on file with the school district. A copy of each lien shall be forwarded to the Office of Superintendent of Public Instruction.
3. Copy of either a permanent or temporary occupancy permit by building official of the jurisdiction.

Due as soon as available following acceptance of the project as complete by the school board:

One copy each of the required releases for:
Dept. of Revenue (chapter 60.28 RCW)
Employment Security Dept. (RCW 50.24.130)
Dept. of Labor and Industries (RCW 51.12.050)

Date:__________________

Authorized Signature: __________________

Complete and return with transmittals to:

Keita Laine
School Facilities Accounting
Office of Superintendent of Public Instruction
PO BOX 47200
Olympia WA 98504-7200
Fax (360) 664-3683

FORM D-11 (Rev 3/00)

OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
School Facilities and Organization
Old Capitol Building, PO BOX 47200
OLYMPIA WA 98504-7200
(360) 753-6734 TYY (360) 664-3631

FORM D-12
RETAINAGE RELEASE APPROVAL

Form D-12 is notification that the State Board of Education has approved the district's documentation verifying completion of construction. The district may release the cash/bond retainage to the contractor as designated below.

PROJECT INFORMATION

Project Name: ______

School District:	______ No. ______	County:	______
Address:	______	Contact Person:	______
City:	______	Telephone:	______
Zip Code:	______	Fax:	______
		E-Mail:	______
Contractor:	______		

The district has certified that there are no liens on file for this project and all other requirements have been met. The district may release bond number taken from dated at the earliest convenience.

For projects with outstanding liens:

As each lien is released the district shall provide one copy of the release or settlement to the Office of Superintendent of Public Instruction. A revised D-12 will then be issued to the district allowing the release of the retainage. This process will continue until all liens on file have been released and all retainage has been dispersed.

SAMPLE

Page 2 contains a list of liens and the applicable formula (WAC 180-29-170).

For projects with no outstanding liens:

When the district certifies that there are no liens on file, this form shall serve as authorization to release the retainage bond(s) or all funds held in the retainage account to the contractor.

______

Keita Laine
Disbursement Officer
School Facilities Accounting
Office of Superintendent of Public Instruction
PO BOX 47200
Olympia WA 98504-7200
Fax (360) 664-3683

Date: ______

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Section 301 – The Advance Planning Process

Anticipating the needs of the district and providing the necessary facilities to meet these needs in a timely manner are among the more significant duties of a district's board of directors and, therefore, an advance planning process should be implemented.

The board may choose to delegate this task to a facilities committee which may include both board and staff members. It is also suggested that members of the community at large should be included or, at least, public input should be sought at key points in the planning process.

Key elements of the advance planning process include the district's education plan, enrollment projections, an evaluation of existing facilities, a measure of the district's financial capabilities, and a long-range plan to achieve these goals. In the state assistance for school construction program, the resulting document of the advance planning process is known as the study and survey. A detailed description of this document is included in this chapter.

All districts that wish to receive state financial assistance for construction or modernization of school facilities are required to prepare a study and survey and to review and update it on a regular basis after adoption.
(WAC 180-25-020)

Section 302 – Financial Assistance for Planning

Financial assistance for conducting a study and survey is available to any qualifying district. Application must be made through OSPI School Facilities and Organization. OSPI regional coordinators are available to assist and advise districts in applying and qualifying for such assistance.

The procedure for obtaining financial assistance for planning is as follows:

1. The district shall submit to OSPI a request for a study and survey grant on Form D-1 no later than 60 days prior to any regularly scheduled meeting of the SBE.
2. This request will be processed and submitted by OSPI along with a recommendation for action to the SBE.
3. The SBE will consider the request and the recommendation and take action thereon.
4. OSPI will issue Form D-2 which notifies the district of the amount of the grant awarded by the SBE.
5. The district conducts the study and survey.
6. The completed study and survey is submitted to OSPI for review and comment. If the review indicates that further work is required to complete the study and survey, the district shall complete the required work and transmit the results to OSPI for approval.

Grant moneys cannot be used for expenses incurred by district staff in preparing the study and survey.

6. Upon receipt of approval of the study and survey, the district shall submit Form SPI 1482 (Exhibit 3A) with these billings and expense vouchers to OSPI that indicate the cost to the district for conducting the study and survey. OSPI will then reimburse the district for the appropriate cost of the study and survey in an amount not to exceed the amount of the approved grant.

Section 303 – Participatory Planning

The development of the study and survey is best accomplished by a team consisting of, but not limited to:

- Local citizens.
- School district board of directors.
- School administrators, staff, and students.
- Educational consultants.
- Architects and engineers.

Some systematic method of ensuring wide participation should be established. This participatory planning brings together persons who typically have not worked together before. It involves consumers and persons from many agencies, organizations, and groups that have both a stake in the problem and in the solution. Such participation should build a sense of ownership on the part of all those involved.

Since implementation of any major building program is usually contingent upon public understanding and support, it is essential that the community be fully informed of the identified needs, plans to meet these needs, and how and why the plans were adopted.

Section 304 – Study and Survey

The study and survey must be comprehensive in nature, dealing with all factors related to all school facilities within the district.

The process for conducting the study and survey should include:

1. Meeting with the appropriate OSPI regional coordinator. The regional coordinator will provide an overview of the suggested planning process, data on local demographics and potential financial eligibility, and an overview of the state funding process.
2. Development of a plan of action for conducting the long-range planning study.
3. Analysis of the current educational program.

4. Analysis of future educational needs and the community characteristics affecting the use of facilities.
5. Determination of present and future student populations and characteristics.
6. Assessment of the educational adequacy of the existing facilities.
7. An accurate calculation (gross square feet) of the existing facilities, including ages of buildings, additions and improvements (Exhibits 3B, 3C, and 3D).
8. A description of the types and kinds of systems and subsystems used in the facilities and an assessment of their physical condition, including status of compliance with current codes and regulations. In addition to the assessment, the building condition evaluation form (BCEF) also must be completed.
9. The development of a long-range educational and facilities plan.
10. An assessment of financial resources.
11. Specific recommendations adopted by the local school board.

Once completed, the district shall submit the study and survey together with a project application, if appropriate (Form D-3), for review by OSPI 60 days prior to the SBE meeting. It may be beneficial to prepare submission at a group meeting between district staff and the OSPI regional coordinator.

Corrections of any deficiencies noted by OSPI must be made no later than 30 days prior to the SBE meeting.

Organization and Content

The study and survey should be organized into preliminaries and a series of chapters.

Refer to Table 3.1 for a description of the content for the preliminaries and for each chapter. The study and survey shall be submitted in a three-ring binder with a labeled and tabbed divider at the beginning of each chapter.

OSPI Review

Typical questions asked by OSPI when reviewing a study and survey include:

1. Have an area analysis, a description of building systems and subsystems, a condition description and assessment, and a summary sheet of the BCEF been prepared for every facility within the district?
2. What is the educational plan that will accomplish the goals of the district?
3. How do the current facilities contribute to or detract from the district's ability to carry out the educational plan?
4. What new construction, additions, alterations, or comprehensive modernizations are being proposed and how will these enhance the educational program?
5. What are the priorities and timelines for proposed projects and how do these relate to the educational program?
6. What are the ages of the buildings, additions, and major state-assisted modernizations?

Table 3.1 Study and Survey Report

Preliminaries	Contents
Required documents and summary of findings and recommendations.	• Transmittal Letter • School Board Resolution Adopting the Study and Survey • Table of Contents • Executive Summary • Form D-3 (as applicable) • School Board Resolution permanently removing space from instructional inventory (needed only with Form D-3 for a N/L of modernization project).
Chapters	**Contents**
(1) An inventory and area analysis of existing school facilities within the district, a description of the types and kinds of systems and subsystems used in those facilities and their physical condition.	Include the following in the inventory and area analysis: • An overall site plan. Label the major buildings and features, means of access, and orientation, ages of buildings, additions, and major state-assisted modernizations. (See Exhibit 3E.) • An area analysis prepared in accordance with WAC 180-27-019, and AIA Document D-101. (See Exhibit 3D.) Show the areas calculated on small-scale floor plans. (See Exhibit 3D.) List the square footage of each area. Include the dates of original construction and any such modernization(s) on the plans. • Describe the types and kinds of systems and subsystems used in the building, their physical condition, and any recommended actions. • Include a BCEF summary sheet for each facility, building, or distinct portion thereof. (See Exhibit 3F)
(2) A long-range (i.e., minimum of six years) educational and facilities plan setting forth the projected facility needs and priorities of the district based on the educational plan.	Describe the district's long-range educational plan as adopted by the school board. Show how program goals and objectives are supported by a six- to ten-year capital facilities plan.
(3) Demographic data including population projections and projected economic growth and development.	Include the OSPI Cohort Survival Enrollment Projection, Report 1049, and any other pertinent data specific to growth within the district. Include Form 1066 Students with Disabilities Enrollment (see Exhibit 3G).
(4) The ability of the district to provide capital funds by local effort.	List the assessed valuation of the district, any outstanding bonded indebtedness, and the current bonding capacity. Compare the results to the estimated project cost.

Table 3.1 Study and Survey Report (continued)

Chapters	Contents
(5) The existence of a school housing emergency.	• This section is rarely used and only applies in emergency situations where the only facility in a district is rendered unusable. • Provide evidence of any natural disaster that resulted in the loss of facilities to support the school program. Show that the district is at its statutory limit for bonding capacity.
(6) The need to improve racial balance and/or to avoid creation or aggravation of racial imbalance.	List the districtwide minority population and then relate individual building minority population data as a percentage of the districtwide population.
(7) The type and extent of new and/or additions to existing school facilities required and the urgency of need for such facilities.	List all new facilities or additions needed to support the long-term educational plan and any construction phases necessary to achieve the plan.
(8) A cost/benefit analysis on the need to modernize and/or replace existing school facilities in order to meet current educational needs and the current state building code.	Describe the modernization needs for each and every school facility. List deficiencies and recommended actions. Provide a cost breakdown on a system and subsystem basis. If state funds are requested, provide the required cost-benefit analysis.
(9) The need and the estimated capital cost to restore to design specifications the major building systems and subsystems that have deteriorated due to deferred maintenance.	List the backlog of maintenance, repair, and replacement needs for each and every school facility. These should be capital projects that are not included in the annual maintenance budget. Costs for deferred capital improvements are not eligible for state modernization assistance.
(10) A determination of the district's time line for completion of the school facilities project.	Include at a minimum the major milestones of the project(s) such as: • Bond issue. • Design. • Construction. • Project completion. • Board acceptance. Note any long-term construction phases.
(11) An inventory of accessible unused or underutilized school facilities in neighboring school districts and the physical condition of such school facilities.	Provide letters from adjacent school districts regarding their ability to provide facilities to house nonresident students and the physical condition of any such facilities. Include a school board resolution as to space availability in neighboring school districts.
(12) The need for adjustments of school attendance areas within the district.	Show how changes in attendance areas or district boundaries within or among neighboring districts could result in adequate available space to house school children–thus negating the need for state-supported new construction or modernization.

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Section 305 – Community Analysis

An integral part of educational planning is an analysis of the community's present status and a projection of its future character. Additionally, an effort should be made to determine what the citizens expect from their schools and what the community's educational needs are. The following aspects of the community's development should be considered:

1. Demographic characteristics and population density patterns.
2. Population changes due to migration patterns and fluctuations in the birth rate.
3. Socioeconomic patterns that result in population shifts within the community.
4. Possible shifts in housing patterns and household size for potential impact on school enrollment.
5. Current major highway and street networks and their probable development.
6. Current assessed value of properties.
7. Potential changes in land usage (residential, commercial, and industrial).
8. Changes in school district boundaries.
9. Availability and location of community services.
10. Vocational opportunities in the community.
11. Community expectations for its school.
12. Citizen attitudes and aspirations in general.
13. Local comprehensive plan (especially if jurisdiction is included under the Growth Management Act).

Much of the needed data for this analysis can be obtained from school records and from other public agencies and institutions. Information concerning attitudes can be collected by conducting public meetings, workshops, and/or opinion surveys by telephone or written questionnaires.

Section 306 – Educational Plan

The educational plan is that section of the study and survey which describes in general the community's educational philosophy and goals connecting the district's facilities plan with the long-range educational plan.

OSPI encourages districts to develop statements of goals for education. These statements shall be consistent with the "Goals for Washington Schools" established by the SBE (Exhibit 3H).

Section 307 – School Enrollment Analysis

An analysis of the following data is an essential component of the study and survey.

- Population trends.
- Number of live births.
- Public school enrollment figures (including children with disabilities).
- Nonpublic school enrollment figures.

- Holding power of public school enrollment (dropout ratios).
- Migration patterns.

Long-range projections of enrollments are an essential element to be considered. Some of the factors that affect long-range projections are:

- Changing economic conditions.
- Nonresident and nonpublic school students.
- Boundary changes.
- Pupil dropout/retention/acceleration.
- Land use changes.
- Type of housing.

A cohort enrollment projection is available for each district from OSPI. This projection is based on previous reported October enrollments and is used for determining the amount of state financial assistance.

Section 308 – Evaluation of Existing Facilities

As stated previously, the study and survey includes a physical condition assessment and an educational adequacy assessment for all existing facilities in the district. The two assessments are separate and distinct. Each measures different aspects of school buildings.

Physical Condition Assessment

The assessment of the physical condition of existing facilities includes the major systems, subsystems, and components such as architectural, structural, mechanical, and electrical elements. A thorough assessment is important since it provides:

- Information required for Chapters 1, 8, and 9 of the study and survey (see Table 3.1).
- Information for the district in making decisions regarding the extent, need, and urgency for making capital expenditures.
- An inventory of building deficiencies to be repaired or replaced under the district's capital improvement program.
- Baseline information that is critical to the planned facility management program as envisioned in Chapter 11 of this manual.

The assessment team should include district facility staff who have firsthand knowledge of building and equipment problems. A multidisciplinary team of professional architects and engineers should complete the analysis to assist the district in determining what projects to include in their capital improvement plan.

The process of assessing the physical condition of existing school buildings starts with the construction date(s); inventory; and description of the building systems, subsystems, and components. Deficiencies are identified by comparing the systems and components to normal operating or design standards and/or code requirements. The costs to correct those deficiencies are then estimated and a priority assigned.

The findings of the physical examination of the existing buildings contribute to the completion of Chapter 1 of the study and survey and yield the information for completing Chapters 8 and 9 on district modernization needs and any deferred maintenance backlog. The difference between the requirements of Chapters 8 and 9 of the study and survey needs to be made clear.

Facility adaptation, facility renewal, and deferred maintenance are the major deficiency categories. Facility adaptation includes project costs for improvements that are driven by program changes, code upgrades, and other compliance issues. Facility renewal includes project costs for the replacement of components that are beyond their useful lives. Facility adaptation and renewal projects are matchable and come under Chapter 8 of the study and survey.

Deferred maintenance items are identified in Chapter 9 of the study and survey. Other terms for deferred maintenance are repairs or replacements, major or minor, that restore building components and systems to function as designed but the district knowingly and consciously chose not to repair or replace. These are capital projects because they require unique planning, scheduling, funding and management, but cannot be classified under the facility adaptation or facility renewal categories. Therefore, projects of this type are not matchable. Minor repairs should be completed as part of the district's annual maintenance program.

Educational Adequacy Assessment

School buildings are designed around factors such as school board policies, course offerings, instructional activities, and the number of students and grade levels to be served. The educational assessment differs from the physical assessment in that it identifies the capability of the school building to support the educational program.

The first step of the process involves gathering information on the above factors to gain an image of the educational expectations and establish a baseline for analysis. Next, the buildings and other spaces need to be inspected according to the criteria established in the baseline. Again, a multidisciplinary approach is recommended. Teachers, administrators, community members, and designers view a facility differently; each may identify deficiencies that the others may overlook.

Elements of evaluation include health and safety issues, spatial relations, circulation patterns, environmental issues, technology capability, issues of accessibility, and more. Factors to be included in the review process fall into two groups and may include:

Facility Factors:

- Is the facility capacity adequate to support the expected school population?
- Are previous facility policies, standards, and expectations still acceptable?
- Does the facility support current busing, parking, or barrier-free design requirements?
- Does the facility address the issues of security, student safety, and supervision?
- Is the facility location convenient for the users?
- Is the facility attractive and comfortable?

Building and Space Factors

- Are classroom types and sizes adequate?
- Are support spaces adequate in size and number?
- Do classrooms contain the required or desired utilities and equipment?
- Is the classroom environment (lighting levels, acoustics, heating, ventilating, air conditioning) suitable?

Educational and design professionals should review the deficiencies identified in the inspections and determine what changes and building upgrades are necessary to align the building's capability with the current or future educational program. This professional evaluation is necessary in order to transform the findings into capital projects and bond issues.

The resulting capital projects should be listed as modernization or replacement needs in Chapter 8 of the study and survey. All projects of this type may be eligible for state assistance.

Section 309 – Long-Range Plan

The long-range plan reaches conclusions about "where we are, where we want to go, and how we are going to get there."

The long-range plan develops a structure for:

- Implementing the district's educational goals and program.
- Managing and developing its facilities for growth and change.
- Establishing standards and levels of service.
- Establishing future actions and their priorities.
- Considering elements of the city or county comprehensive plan as may be required by the Growth Management Act.

The long-range plan is an ongoing tool and needs periodic review in order to confirm basis tenets and assumptions and to validate proposed plans and actions.

Section 310 – Assessing Financial Resources

If the long-range plan reveals a need for facility improvement for modernization or new construction, cost estimates must be prepared. For most districts, the amount of money that can be devoted to construction or modernization of existing school facilities is determined by legal considerations, the willingness of its citizens to provide funds, the availability of state moneys, and the eligibility of the district to receive state assistance. All potential funding sources (and combinations thereof) should be considered. Since construction funds come largely from property taxes, historical trends of assessed valuation should be developed and updated annually. Outstanding school district debts should be analyzed to determine the possibility of dovetailing payments with future debt service requirements to obtain equal annual payments and possibly stable tax rates.

It would be advantageous for the district to enlist the services of a financial consultant to assist them at this stage of planning. Refer to Chapter 4 of this manual for additional information on this subject.

Section 311 – Recommendations

The long-range planning recommendations of the study and survey should document the need for additional sites, abandonment or sale of existing surplus facilities or sites, new construction, modernization, or change in use. Recommendations will address both short- and long-range needs and objectives. Recommendations should also reconcile school facility needs with the district's financial resources.

A capital improvement program should be developed. This should include the preparation of a list of capital improvements and a plan for phasing improvements over six to ten years. A specific financial plan should be prepared for immediate projects.

Section 312 – OSPI Review and Approval

The study and survey shall be reviewed and approved by OSPI. To qualify for consideration and eligibility, the district shall then submit a Form D-3 to OSPI for SBE approval for each school facility project.

STATE BOARD OF EDUCATION
Office of Superintendent of Public Instruction
PO BOX 47200
Olympia, WA 98504-7200
(360) 753-6734 TTY (360) 664-3631

STUDY AND SURVEY CLAIM

Claimant's Name: Claimant's Address:	CLAIMANT CERTIFICATE: I HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT THE ITEMS AND TOTALS LISTED HEREIN ARE PROPER CHARGES TO THE STATE OF WASHINGTON AND THAT ALL GOODS AND SERVICES FURNISHED HAVE BEEN PROVIDED WITHOUT DISCRIMINATION ON THE GROUNDS OF RACE, CREED, COLOR, NATIONAL ORIGIN, SEX, OR AGE. BY:
Billing Date:	Signature of Claimant's Authorized Agent

Reimbursement to________________________ School District No.________
for state study and survey grant per attached statement of expenses incurred.

SAMPLE

Total state grant: $
Expense(s) incurred: $

OSPI USE ONLY

	PAYEE NO.
Approved by OSPI Director, School Facilities and Organization Date	PROJ NO.
	CERT NO.
Reviewed by financial consultant:	DATE
ACCOUNT CODE:	

FUND	APPROP	PROG	SPROG	OBJECT	SUB OBJECT	AMOUNT

ACCOUNTING APPROVAL:________________________

AUDITED:________________________

VOUCHER NO.

FORM SPI 1482 (Rev. 4/00)

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Exhibit 3B – Area Calculations

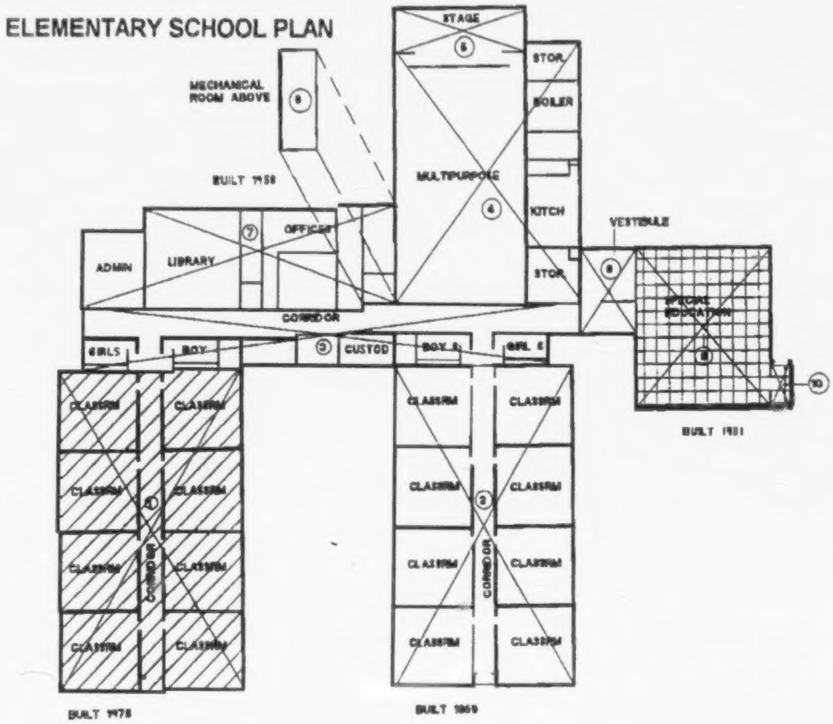
WAC 180-27-019 Definition—Instructional Space
The term "instructional space" means the gross amount of square footage calculated in accordance with the *American Institute of Architects, Document D101, The Architectural Area and Volume of Buildings, latest edition,* for a school facility utilized by a school district for the purpose of instructing students: *Provided*, That the following areas shall not be included in any calculation of instructional space:

(1) Exterior covered walkways, cantilevered or supported.
(2) Exterior porches including loading platforms.
(3) Space used by central administrative personnel.
(4) Stadia and grandstands.
(5) Bus garages.
(6) Free-standing warehouse space specifically designed for that purpose.
(7) Portable facilities.
(8) Other square footage not otherwise available or related to direct instruction or instructional support of the education program in the district.
(9) The portion(s) of any space(s) constructed from grants made as a gift to a school district by a private entity or a public entity which:
    (a) Is dedicated by the written terms of the grant to joint use by the school district for educational purposes and by the general public for community activities for the useful life of the space(s); and
    (b) The school district board of directors has accepted the gift in accordance with the joint use terms of the grant: *Provided*, that this exception does not apply to space(s) jointly financed by two or more school districts.

(Statutory Authority: RCW 28A.47.830. 28A.47.060 and 28A.47.802. 90-01-076, § 180-27-019, filed 12/19/89, effective 12/19/89.)

Note: Calculate covered play areas as one-half of the gross covered area. Other areas shall be calculated as shown on the area diagram on page 15, Exhibit 3D.

Exhibit 3C – Sample Area Diagram



ELEMENTARY SCHOOL AREA SUMMARY			
Year	Area No.	Area Name	Sq. Ft.
1959	2	Classroom	8,436
1959	3	Corridor/Toilets	3,940
1959	4	Multipurpose	6,300
1959	5	Stage	650
1959	6	Lobby	589
1959	7	Library/Office	3,813
1959	8	Mechanical	NC *
		1959 Subtotal:	23,728
1975	1	Classroom	8,436
		1975 Subtotal:	8,436
1994	9	Special Ed.	2,744
1994	10	Vestibule	134
		1981 Subtotal:	2,878
		Grand Total:	35,042

* NOT COUNTED

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AIA Document D101
Methods of Calculating Areas and Volumes of Buildings

There is no single standard for calculating areas and volumes of buildings. This document describes several options for calculation that may be at variance with applicable building code(s). Concurrence as to method(s) used and conformance to applicable code(s) is necessary.

ARCHITECTURAL AREA OF BUILDINGS

The ARCHITECTURAL AREA of a building is the sum of the areas of the floors of the building, measured from the exterior faces of exterior walls or from the centerline of walls separating buildings. The architectural area includes basements, mezzanines, intermediate floors and penthouses, provided that these areas have a minimum of seven feet (2.13 meters) headroom height. Discretion is advised in calculating areas of interstitial space, such as mechanical spaces where live load requirements meet or exceed those permitted for habitation under local building codes.

- Paved or finished covered areas, such as open porches and similar spaces, shall have the architectural area multiplied by an area factor of 0.50.
- The architectural area does not include such features as utility chases (less than seven feet [2.13 meters] to any physical obstruction), exterior terraces, steps or eaves.

ARCHITECTURAL VOLUME OF BUILDINGS

The ARCHITECTURAL VOLUME (cubic volume) of a building is the sum of the products of the areas defined above, multiplied by the floor-to-floor height or floor-to-mean-finished-roof height.

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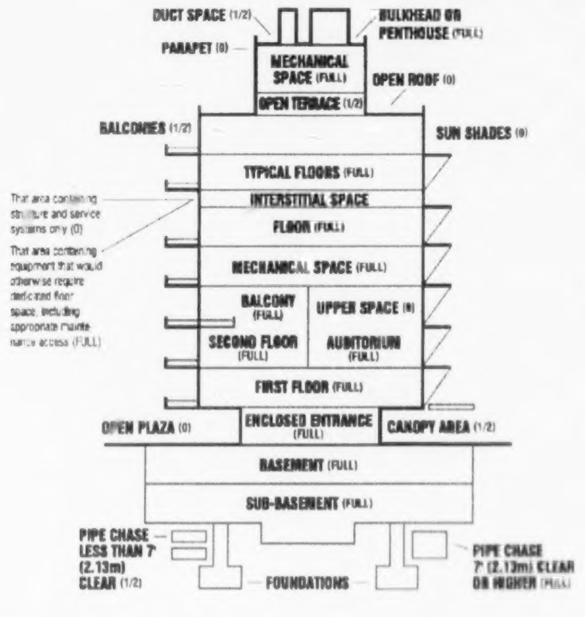

ARCHITECTURAL
AREA DIAGRAM

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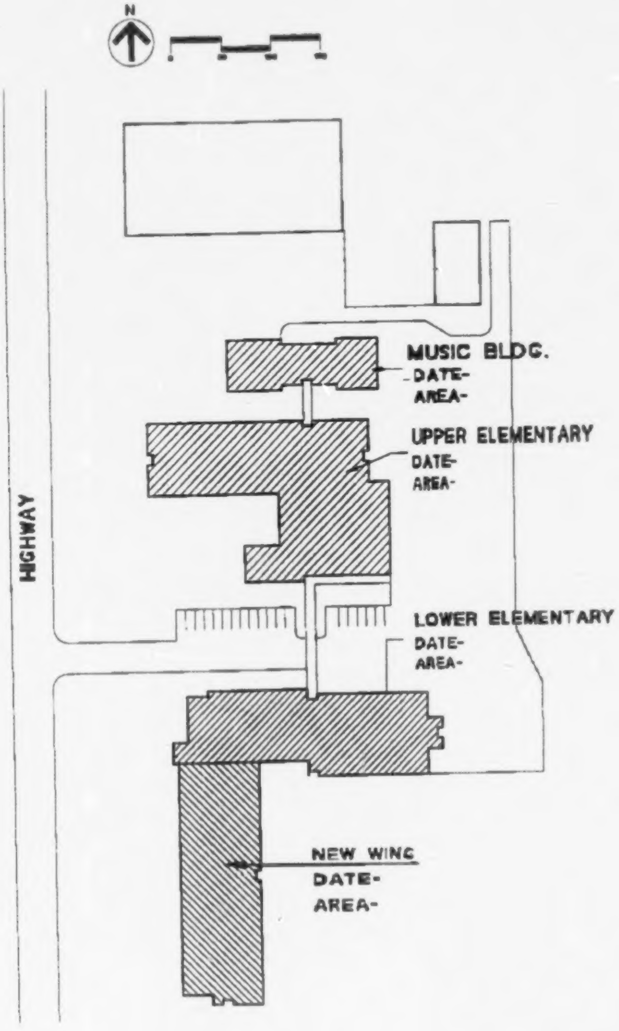
Exhibit 3E – Sample Site Plan

ELEMENTARY SCHOOL SITE PLAN



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OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
School Facilities and Organization
Old Capitol Building
PO BOX 47200
OLYMPIA WA 98504-7200

BUILDING CONDITION EVALUATION

COUNTY/SCHOOL DISTRICT	SCHOOL NAME	BUILDING NAME	BUILDING NUMBER

COMPONENTS	SYSTEMS	RATINGS				COMBINED	COMMENTS
		GOOD (1)	FAIR (2)	POOR (3)	UNSAT. (4)		
1.0 Exterior Building Condition	1.1 Foundation/Structure	+12	+8	+6	+4		
	1.2 Walls	+8	+5	+3	+1		
	1.3 Roof	+7	+5	+2	0		
	1.4 Windows/Doors	+2	+1	0	0		
Component Score	1.5 Trim	+2	+1	0	0		
2.0 Interior Building Condition	2.1 Floors	+8	+5	+2	0		
	2.2 Walls	+8	+5	+1	0		
	2.3 Ceilings	+5	+3	+1	0		
Component Score	2.4 Fixed Equipment	+2	+1	0	0		
3.0 Mechanical Systems Condition	3.1 Electrical	+6	+4	+2	0		
	3.2 Plumbing	+4	+2	+1	0		
	3.3 Heating	+6	+4	+2	+1		
	3.4 Cooling	+6	+4	+2	+1		
Component Score	3.5 Lighting	+4	+3	+2	0		
4.0 Safety/Building Code	4.1 Means of Exit	+6	+4	+2	0		
	4.2 Fire Control Capability	+4	+3	+2	+1		
	4.3 Fire Alarm System	+4	+3	+2	+1		
	4.4 Emergency Lighting	+2	+1	0	0		
Component Score	4.5 Fire Resistance	+4	+3	+2	+1		
	TOTALS						
5.0 Provisions for Handicapped		X	X	X	X		

Suitability Code and Definition (Circle Appropriate Code)

4 Building makes positive contribution to educational environment.
3 Building suitable
2 Current use of space is compatible with intended use but needs remodeling
1 Current use of space is not compatible with intended use or design

Significant Location Factors/Overall Conclusions

Evaluator's Signature ______________________________

School Official's Signature ______________________________

Date	Unadjusted Score	Adjusted Score

FORM SPI 1513 (6/00) **Record Information on Building System Data Elements on Reverse Side.** (RCEF WK3 12/30/97)

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OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
School Facilities and Organization
Old Capitol Building
PO BOX 47200
Olympia, WA 98504-7200
(360) 753-6702 TTY (360) 664-3631

ESD	CO	DIST

ENROLLMENT/CLASSROOM COUNT
1999–2000

School District

1. ENROLLMENT REPORT AS OF LATEST OCTOBER 1 COUNT

Enter the number of students with disabilities (as reported on actual October headcount enrollment) who are assigned to a specially designated self-contained classroom for at least 100 minutes per school day. Enter both pre-kindergarten and kindergarten students with disabilities at 50 percent of the actual headcount enrollment.

Grade	**October Enrollment** per above definition
Pre-Kindergarten	
Kindergarten	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
Total	

2. NUMBER OF CLASSROOMS BY FACILITY

List by building the number of specially designated self-contained classrooms for students with disabilities and the number of classrooms assigned to the regular instructional program.

Building Name	Self-Contained Classrooms for Students with Disabilities	Regular Classrooms/Teaching Stations

Return to: School Facilities and Organization
Office of Superintendent of Public Instruction
Old Capitol Building
PO BOX 47200
OLYMPIA WA 98504-7200

Fax Number: (360) 586-3946

SIGNATURE OF SUPERINTENDENT/DESIGNEE DATE

FORM SPI 1066 (Rev. 9/99)

ESD	CO	DIST

2. NUMBER OF CLASSROOMS BY FACILITY (continued)

List by building the number of specially designated self-contained classrooms for students with disabilities and the number of classrooms assigned to the regular instructional program.

Building Name	Self-Contained Classrooms for Students with Disabilities	Regular Classrooms/Teaching Stations

FORM SPI 1066 (Rev. 9/99)

Exhibit 3H – State Board of Education Goals for Washington Schools

Vision

The State Board of Education is a respected leader and trusted partner in developing schools and programs that prepare each student for the 21st century.

Mission

Providing leadership, support and advocacy, through policy, so that each student achieves success in school and life.

WAC 180-40-210 Student responsibilities and duties. The mission of the common school system is to provide learning experience which will assist all students to develop skills, competencies, and attitudes that are fundamental to an individual's achievement as a responsible, contributing citizen. (First sentence only.)

RCW 28A.150.210 Basic Education Act—Goal. The goal of the Basic Education Act for the schools of the state of Washington set forth in this chapter shall be to provide students with the opportunity to become responsible citizens, to contribute to their own economic well-being and to that of their families and communities, and to enjoy productive and satisfying lives. To these ends, the goals of each school district, with the involvement of parents and community members, shall be to provide opportunities for all students to develop the knowledge and skills essential to:

(1) Read with comprehension, write with skill, and communicate effectively and responsibly in a variety of ways and settings;
(2) Know and apply the core concepts and principles of mathematics; social, physical, and life sciences; civics and history; geography; arts; and health and fitness;
(3) Think analytically, logically, and creatively, and to integrate experience and knowledge to form reasoned judgments and solve problems; and
(4) Understand the importance of work and how performance, effort, and decisions directly affect future career and educational opportunities.

[1993 c 336 § 1.]

RCW 28A.150.211 Values and traits recognized. The legislature also recognizes that certain basic values and character traits are essential to individual liberty, fulfillment, and happiness. However, these values and traits are not intended to be assessed or be standards for graduation. The legislature intends that local communities have the responsibility for determining how these values and character traits are learned as determined by consensus at the local level. These values and traits include the importance of:

(1) Honesty, integrity, and trust;
(2) Respect for self and others;
(3) Responsibility for personal actions and commitments;
(4) Self-discipline and moderation;
(5) Diligence and a positive work ethic;
(6) Respect for law and authority;
(7) Healthy and positive behavior; and
(8) Family as the basis of society.

[1994 c 245 § 10.]

Participants

Legend

■ Primary Responsibility for Action

□ Participation in Action

	Local					State							City/County								Consultants																			
Activity	Citizens/Students	SD Board of Directors	SD Superintendent	SD Staff	SD Hazardous Materials Designated Person	State Board of Education	Superintendent of Public Instruction	Public Disclosure Commission	Energy Office	Department of Ecology	Labor and Industries	Electrical Inspector	Planning Officials	Building Officials	Fire Marshal	Public Works	Health Officials	Electrical Inspector	County Auditor	County Treasurer	Program Management	Financial Advisor	Bond Underwriter	Bond Counsel	Legal Counsel	County Prosecutor	Real Estate Broker	Geotechnical Engineer	School Facility Planner	Land Surveyor	Educational Consultant	Construction Manager	Architect/Engineer	Value Engineering Team	Constructability Review	Building Commissioning	Contractors	Testing Laboratories	Other	Remarks
Advance Planning (Chapter 3)																																								
1. Initiate Action (New or Review)			■																																					
2. Request Grant from SPI (Form D-1)			■																																					
3. Award of Planning Grant (Form D-2)						■																																		
4. Assign Supplemental Funds as Required		■	□																																					
5. Form Study and Survey Team Indoctrinate		□	■	□			□																																	
6. Conduct Study and Survey Activities																																								
A. Community Analysis	□		■	□									□																□											
B. School Enrollment Study	□		■	□									□																□											
C. Educational Plan	□	■	□	□																									□											
D. Evaluate Existing Facilities	□		□	□	□									□	□	□	□	□															□							
E. Master Plan	□	■	□	□																									□											
F. Assessment of Financial Resources	□		■	□																□		□																		
G. Building Condition Evaluation Form			■	□																													□							
H. Recommendations	□		■	□																																				
I. Determination of Project Eligibility and Level of State Assistance							■																																	
7. School Board Review & Approval	□	■	□	□																																				
8. Submit Appl. for Project Approval (Form D-3)		■																																						
9. Project Review and Approval (Form D-4)						■	□																																	

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Chapter 4

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Section 401 – Financing Capital Improvements

Districts may obtain funds for financing capital improvements from some or all of the following sources:

1. Sale of voted unlimited tax general obligation bonds ("UTGO bonds") under RCW 28A.530.010 authorized for school building construction purposes.
2. Sale of nonvoted limited general obligation bonds under RCW 28A.530.080 authorized for modernization of existing school buildings, including energy efficiency improvements and structural additions.
3. Sale of certain short-term obligations under chapter 39.50 RCW, such as bond anticipation notes, grant anticipation notes, and revenue anticipation notes authorized for school building construction purposes.
4. Voter-authorized excess tax levies for capital purposes (capital levy).
5. Proceeds from investments of capital project fund moneys.
6. Funds received from the state for assistance in the construction of school facilities (state matching money).
7. Funds received from other sources (federal funds, insurance proceeds, property sales, gifts, etc.) and available for the construction of school facilities.
8. Mitigation fees from environmental impacts by the State Environmental Protection Act (SEPA).
9. Impact fees or charges for expanding school facilities to meet growth under the Growth Management Act (GMA)..

For state assisted "front-funded" projects, the district must certify total project costs are available and disbursable.

No part of state-appropriated funds shall be allocated to a district capital improvement until the district has provided funds in such amount as will total its share of funding for the improvement. The district's local share of funds may be any combination of moneys obtained from the sources listed above.

Section 402 – Use of UTGO Bonds to Finance Capital Improvements

Although there are a variety of financing sources available to school districts to finance capital improvements, the most widely used source is proceeds from the sale of UTGO bonds. Consequently, this chapter will focus primarily on the sale, issuance, and delivery of UTGO bonds. If a district is contemplating using one of the other financing sources identified above in Section 401, we strongly recommend the district contact bond counsel to review the legality of the contemplated financing source. The consequences of an unauthorized financing can be serious. An unauthorized financing may be void and unenforceable and interest on such a financing may not be tax-exempt.

Section 403 – Key Participants in Financing Capital Improvements with UTGO Bonds

There are a number of key participants in financing capital improvements with UTGO bonds. These participants include, among others:

1. **School District Officials**

   Generally, the chief coordinator of the financing will be the superintendent, business manager, or other designated person who has expertise in the finance area. The school board also plays an important role in approving the financing. Further, school district architects and engineers provide critical information regarding the improvements sought to be financed by the district.

2. **Financial Advisor**

   Financial consulting firms or institutions cooperate with the bond counsel and advise the district regarding market conditions, maturity schedule and call provisions for UTGO bonds, appropriate dates for sale of UTGO bonds, and they assist in obtaining ratings for the district. They also prepare and distribute the official statement for the sale and verify the bids for purchase.

3. **Underwriter**

   An underwriter is an independent investment banking firm or financial institution that purchases and markets bonds and other obligations. The underwriter will generally assume responsibility for the preparation of an official statement in the event there is no financial advisor.

4. **Bond Counsel**

   These are independent law firms which draft and review the necessary proceedings, including closing documents, leading up to the sale, issuance, and delivery of bonds or other debt obligations and advise the district on legal issues which arise under state and federal law. Bond counsel also provides an approving legal opinion, assuring the purchasers of the bonds that notes and other obligations are valid and legally binding under state law and that the interest paid on such obligations is exempt from federal income taxes.

   A clear distinction should be made between bond counsel that provide legal services, an underwriter that purchases and markets the bonds, and financial advisors that provide marketing assistance and other financial advice. A district should consider selecting its financial advisor, underwriter, and bond counsel as soon as its school board has resolved to proceed with development of a new facility. Some districts also select an underwriter at that time if they are planning on selling the UTGO bonds by a negotiated sale.

5. Bond Insurance Companies and SJR 8206

The bond insurer guarantees to the holder of the bonds the payment of principal and interest against nearly all eventualities. The effect of bond insurance is to increase the rating of the school district's bonds from the "underlying" rating to a AAA, generally from both Moody's and Standard & Poor's. Bond insurance companies charge a premium based on a percentage of all debt service insured. On November 2, 1999, SJR 8206 was approved at a statewide election. SJR 8206 amends the Washington Constitution to permit the state to pledge its full faith, credit, and taxing power to guarantee UTGO bonds of school districts. Thus, the state, rather than bond insurance companies, guarantees the payment of school district UTGO bonds. Legislation is needed to implement SJR 8206. Once implemented, however, SJR 8206 should provide substantial savings to school districts and reduce reliance on bond insurance companies.

6. Rating Agencies

The last major category of participants is the rating agencies, principally Moody's Investor's Services and Standard & Poor's Corporation. The rating agency assigns a letter rating based on that agency's evaluation of the credit worthiness of the school district. Good credit means a higher letter rating, which ultimately translates into a lower interest cost on the bonds.

7. Other

Other participants in a financing include the county treasurer, ESD, and the paying agent/bond registrar (usually the fiscal agents of the State of Washington).

Section 404 – The Issuance of UTGO bonds

UTGO bonds constitute a general obligation of a school district and, as such, the full faith, credit, and resources of the district are pledged for their repayment. UTGO bonds are referred to as "unlimited tax general obligation bonds" because both the principal and interest on such bonds are payable out of anuual property tax levies, in excess of regular property tax levies, upon all the taxable property within the district without limitation as to rate or amount.

School districts have the express authority to issue UTGO bonds; provided that, certain requirements are satisfied. First, UTGO bonds must be approved by 60 percent of the qualified electors within the school district, and the total number of electors casting ballots at the election must constitute not less than 4 percent of those voting in the last state general election. A ballot proposition authorizing UTGO bonds may not be submitted more frequently than twice in any calendar year.

Second, the principal amount of UTGO bonds issued must be within the constitutional and statutory debt limitations. A school district may not issue UTGO bonds in a principal amount that exceeds 5 percent of the assessed value of the taxable property within the district. This limitation should be reviewed by bond counsel each time a district contemplates the issuance of additional debt.

Third, UTGO bonds may be issued for capital purposes only. Such capital purposes include:

1. Acquiring land for buildings, playgrounds, physical education and athletic facilities, and other necessary structures.
2. Erecting buildings, including furniture, equipment, and apparatus.
3. Energy-efficienct improvements.
4. Structural changes and additions.
5. Paying an installment contract for school facilities or a financing lease for school facilities with an option to purchase, the term of which is ten years or longer.
6. Any or all of the above and other capital purposes. See RCW 28A.530.010(2)(7). Number 5 was recently added by the Legislature during the 1999 legislative session.

The Washington Constitution expressly prohibits the use of UTGO bond proceeds for the acquisition of "replacement of equipment." (Article VII, Section 2[6] of the State Constitution.) The term "replacement" means "a person or thing that takes the place of another, especially of one that has worn out, broken down, etc." *(Webster's New Universal Unabridged Dictionary* 1534 [2d ed. 1983].) The *Accounting Manual for Public School Districts in the State of Washington* (the *Accounting Manual)* states that "[r]eplacement is the replacement of a unit of equipment or fixture with another unit or fixture that serves the same purpose in the same way and has the same expected lifetime as the replaced unit when installed." (*Accounting Manual*, Ch. IX, § CPF, at 5.) The term "equipment" means "the special things needed for some purpose; supplies, furnishings, apparatus." (AGO 6 [1994].) In short, UTGO bond proceeds may not be utilized to replace any equipment by new equipment serving the same purpose, in the same way, with the same expected useful life as the replaced equipment when installed.

Equipment is not "replacement" equipment if it is similar to existing equipment but serves a new or greater function, and the new or greater function is the cause for the decision to acquire such equipment. For example, if a school district intends to acquire new technology and such acquisition is merely to upgrade existing technology, the new acquisition of technology might be characterized as "replacement equipment." On the other hand, if the acquisition of technology is to bring new features into the school district's technology system, such as networking, then the district's acquisition should not be characterized as "replacement equipment." As an aside, it is well-established that UTGO bond proceeds may be used to acquire "new types of equipment (computers) to be used in an existing school." Further, if software (or reasonably necessary training) is part of the initial equipping of a new or remodeled building, such as a new computer system or a new computer lab, UTGO bond proceeds may be used to purchase such software (or training). If the software is being purchased to replace existing software for the same purpose in the same way, UTGO bond proceeds may not be used. Also, computer hardware purchased to expand the memory of an existing computer system may be considered "replacement equipment."

Another mechanism to ensure a school district's planned use of UTGO bond proceeds is consistent with the capital purposes described in RCW 28A.530.010 is to distinguish capital expenditures from expenditures for maintenance and operation. Therefore, by their plain meaning, "maintenance and operation" means the usual and ongoing costs to operate a school district. Conversely, capital expenditures are more accurately characterized as those expenditures that are "unusual and extraordinary." The distinction between maintenance and operation expenses and capital expenditures is critical. UTGO bonds mistakenly issued to pay for both maintenance and operation and capital expenses may be held invalid because such bonds may not be viewed as being issued for "capital purposes only." The *Accounting Manual* is a persuasive guide for interpreting and clarifying the capital purposes described in RCW 28A.530.010. See *Accounting Manual*, Ch. IX, § CPF, at 4–5.

UTGO bond proceeds may also be used for the payment of incidental costs and costs related to the sale and issuance of the UTGO bonds, including:

1. Fiscal and legal expenses.
2. Costs of obtaining bond ratings.
3. Printing, engraving, and advertising costs.
4. Capitalized interest for up to six months.
5. Necessary and related engineering, architectural, planning and inspection costs.
6. Other similar activities.

Section 405 – Approval Requirements for UTGO bonds

The approval process requires that the school board approve, by resolution (otherwise known as the election resolution) and at an open public meeting, a ballot proposition to be submitted to the qualified electors within the school district. The ballot proposition asks whether the district shall issue UTGO bonds, payable out of annual property tax levies in excess of regular property tax levies. The resolution approving the ballot proposition must be delivered to the county auditor, who is the ex officio supervisor of elections, not less than 45 days prior to the proposed election date. UTGO bonds must be authorized by the qualified electors within the school district at a special election called by the county auditor of the county within which the district is located. School district bond elections are strictly governed by the Constitution and laws of the State of Washington. The county auditor may call a bond election provided that: (1) a request in the form of an election resolution is filed with the county auditor at least 45 days prior to the proposed election date, and (2) the county auditor deems an emergency to exist. School district bond elections in Washington are permitted on only six specified dates each year as identified in RCW 29.13.020. The proposition submitted to the voters for bonds is also limited to 75 words. Drafting attractive, appealing, and lawful propositions is important and challenging. Bond counsel should prepare the election resolution and ballot proposition. It is not advisable for the district to attempt to prepare its own election resolution. If it is drawn incorrectly, the election may not be valid.

The following information is required for the preparation of the election resolution:

1. **Purpose for the Issue**

   A statement must be prepared by the district and its bond counsel which defines the proposed school building project(s) and the purpose for which the proceeds of the UTGO bond issue will be expended. The election resolution must specify the purposes of the debt financing measure, including the specific buildings to be constructed or remodeled. If the debt financing measure anticipates the receipt of state financing assistance, the election resolution also shall describe the specific anticipated purpose of the state assistance. If the school board subsequently determines that state or local circumstances should cause any alteration to the specific expenditures from the debt financing or of the state assistance, the board shall first conduct a public hearing to consider those circumstances and to receive public testimony. If the board then determines that any such alterations are in the best interests of the district, it may adopt a new resolution or amend the original resolution at a public meeting held subsequent to the meeting at which public testimony was received.

2. **The Term of the Issue**

   In consultation with its bond counsel, financial advisor and/or underwriter, the district must establish the maximum term of years or period of time that the district has to pay the principal of the bond issue.

3. **The Amount of the Issue**

   The most important element in proper project financing is determination of an appropriate cost for the project. This cost must be an aggregate sum of **all** the costs which will be encountered during the entire course of the work. Generally, this cost should include approximately 2 percent of the principal amount of the UTGO bond issue to cover costs of issuance of such bonds.

4. The Ballot Title

Another critical element of the resolution is the ballot title or proposition. All bond ballot propositions must (1) state a capital purpose, (2) fix a maximum dollar amount, (3) establish the maximum term of years, (4) authorize the levy of annual excess property taxes to pay and retire the bonds. Reference also is customarily made to the bond election resolution. All school district ballot propositions must be 75 words and need to have approval by the county prosecuting attorney. Some prosecutors automatically approve ballot titles drafted by bond counsel. But if the prosecuting attorney wants to change something, ask that bond counsel be consulted.

5. Political Considerations

When voters approve a UTGO bond issue for a specific project, they expect that the costs stated in such bond issue will be the complete and entire cost to them for the capital improvement anticipated. The prospect of a district asking voter approval for additional bonds for unanticipated expenditures is not pleasant. On the other hand, if upon completion of the project, money remains available for other capital improvements or for payment of some of the UTGO bonds, the district has earned the respect and good will of its community. The establishment of the election date might be of critical importance to the success or failure of the district's UTGO bond issue. Each district should analyze the results of past elections as they affected the district and also consider election requirements for total voter turnouts for validation. Some districts are most successful at passing UTGO bond issues when high voter turnouts occur and other districts historically fail under similar conditions.

6. Public Disclosure Laws

As part of the UTGO bond election process, the school district must carefully observe the public disclosure laws. Under RCW 42.17.130, no elected official nor any employee of any public agency may use or authorize the use of any facilities of a public office or agency, directly or indirectly, for the promotion of or opposition to any ballot proposition. Facilities of a public office or agency includes, but is not limited to, the use of stationary, postage, machines, equipment, vehicles, office space, publications of the public office or agency, and clientele lists of persons served by the office or agency. There are three exemptions that allow school boards to (1) adopt a resolution in support of or opposition to a ballot proposition, (2) make public statements as elected officials in support of or in opposition to ballot propositions at press conferences, and (3) engage in or authorize activities that are a normal part of the regular conduct of the school district's affairs. The administrative regulations of the Public Disclosure Commission, chapter 390-05 WAC, provide exemptions and a definition of "normal and regular conduct." Sanctions for violation of these laws and regulations can be severe, including fines of $10,000 and the result of the election being held void. See RCW 42.17.390. It may be advisable that any school district-written materials be submitted to Public Disclosure Commission staff for review and comment.

For additional information, please see *Guidelines for School Districts in Election Campaigns* (1993), Public Disclosure Commission. See also the brochure, *Public Facilities and Campaigns* (1997), Public Disclosure Commission.

7. Use of Local Voters' Pamphlet

Additionally, the school district may be required to participate in the preparation of a local voters' pamphlet, which requires an explanatory statement and statements for and against the ballot proposition. See chapter 29.81A RCW. Generally, bond counsel should assist a school district in preparing the explanatory statement. The statements for and against, if any, are generally prepared by members of the campaign for and against committees. Please check with the county auditor for local procedure and practice.

8. Some Things to Remember

- Assemble the financing and election advisory team early.
- Allow ample time for preparation, review, and approval of documents.
- Comply strictly with the open public meetings and public disclosure laws.
- Strive for consistency and accuracy in public statements.
- Never try to write your own bond ballot proposition.

Section 406 – After a Successful Bond Election

Upon completion of a successful UTGO bond election, the district generally will implement the following activities:

1. The financial advisor or underwriter provides the bond counsel the maturity schedule, call provisions, etc., to be used in the UTGO bond issue.
2. The bond counsel prepares the bond resolution and notice of sale and requests transcript documents regarding the election, district financial position, etc.
3. The school board determines whether the UTGO bonds are to be sold through a public sale or a negotiated underwriting (as discussed below).
4. The school board seeks the advice of the financial advisor or underwriter on obtaining a bond rating from Moody's Investors Service, Inc. and/or Standard & Poor's Corporation.
5. The financial advisor or underwriter prepares the official statement, which will be mailed to potential bond buyers. This document provides economic, financial, and general information about the district which will determine the interest rate that a potential bidder will apply to this issue. The bond counsel and district staff review this document to ensure that full and accurate disclosure is made of legal and financial matters concerning the UTGO bond issue.

6. Bond counsel supervises and conducts the closing of the bond purchase transaction and the delivery of the UTGO bonds to the purchaser, including

preparation of all necessary closing documents, printing (including proofreading) of the UTGO bonds, closing receipts and certificates, arbitrage certificate, signature identification and nonlitigation certificates, and verifies the legality and sufficiency of the method of payment for the UTGO bonds.

7. In advance refunding, a certified public accountant (CPA) verifies the arbitrage (see glossary) calculations, verifies the sufficiency of the escrow to pay off the refunded bonds, and ascertains the future and present value of the savings achieved.
8. At the time of closing, bond counsel delivers his or her final approving legal opinion to the school board and the bond purchaser, stating that the UTGO bonds are valid and the interest on them is tax-exempt.

Section 407 – Sale of UTGO bonds

1. Overview

There is no one right way to sell school district UTGO bonds. Districts considering the sale of UTGO bonds will want to understand the alternatives. Selection of the appropriate methods requires consideration of the district's goals and the current conditions of the bond market. If a negotiated sale is chosen, the financial advisor can advise the district regarding the interest rate appropriate for the bonds under current market conditions.

School districts have several options to assist in financing capital improvements after a successful UTGO bond election. These options include:

a. Sale of the UTGO bonds by either a negotiated underwriting or a public sale.
b. Use of bond anticipation notes for interim financing if it is desirable to postpone sale of the long-term UTGO bonds.
c. Use of a line of credit for interim financing.

2. Negotiated Underwriting vs. Public Sale

There are two basic ways for a district to sell UTGO bonds: a negotiated underwriting and a public sale.

a. In a negotiated underwriting, the district works with an underwriter throughout the financing process. The underwriter helps to plan the issue; prepare the disclosure documents (official statement); and determine the maturity amounts, call prices and dates, insurance, and other features. The underwriter watches the bond market to select the most advantageous time for the district to sell the UTGO bonds and negotiates the price and terms of the bonds which it then resells to the ultimate investors. More than two-thirds of the total value of municipal bonds issued nationally are sold through negotiated underwritings. The same is true for UTGO bonds issued by Washington school districts.

A negotiated sale allows for presale marketing activity which can have a significant effect on the eventual structure and price of a UTGO bond issue. A skilled underwriter will actively solicit buyers and negotiate features of the issue to shape the most attractive (and thus the least expensive) bond issue. If buyer interest is strong, the underwriter can reduce their spread since they know there is less risk of holding unsold bonds, and can reduce the scale of interest rates borne by the bonds.

b. In a public sale, the district selects a financial advisor to prepare the issue for public sale. The financial advisor's services include drafting an official statement and the determination of the issue's maturity schedule, issue date, call dates and prices, and other features. The district selects a sale date and time and advertises for bids. On the sale date, bids are received, evaluated by the financial advisor, and the best legal bid is accepted or rejected by the district.

A competitive sale may reduce total interest costs for larger UTGO bond issues if there is a stable bond market and sufficient competition to buy such bonds. When preparing a bid, an underwriter makes assumptions about the prices and yields at which the bonds can be sold to investors. Fluctuating interest rates create the risk that rapid changes will reduce the value of the bonds before they can be sold. Underwriters increase their spread in order to protect themselves from this risk.

When comparing the merits of a negotiated underwriting to a public sale, the district's primary concerns will include the effect of the method of sale on the total cost of the issue, the impact on the tax rate, and the proceeds available for construction. The district should make clear that the process chosen protects the interest of the district and its taxpayers.

3. Discount vs. Par

The gross revenue to any investment banking firm is the spread or difference between the price it pays to the district for the bonds and the price at which it sells the bonds to investors. This spread can be created by either buying the bonds from the district at a discount and selling them to investors at par or buying the bonds from the district at par and selling them to investors at a premium. The underwriter is compensated in either case.

A discount bid means the underwriter pays the district less than par for the bond issue, usually 1 percent to 2 percent less than face value for general obligation bonds in the current market. The size of the issue must then be increased to provide the district's required funds after accommodating the discount.

A par bid means the underwriter pays the district par or face value for the bonds. To cover underwriting expenses and profit on the financing, the underwriter would seek to sell the bonds at a higher price to achieve the spread. The investors pay a premium for the bonds and, in exchange, receive a higher interest rate on these premium bonds. In general, premium bonds are more difficult to sell and may stay in the underwriter's inventory longer, thus requiring a larger spread.

All other things being equal, the lower interest rates of the discount bid would offset the higher principal amount of the discount bid. Often, however, the lower interest rate and lower underwriting spread of a discount bid will more than offset the higher principal amount leaving the district with lower debt service.

Although discount bids will usually reduce costs to the district, par bids do have advantages that should be considered. Par bonds result in smaller issue size. This can be important in cases where a new issue will bring district's total outstanding debt close to statutory or constitutional debt limits.

4. Structuring Debt Service

School districts have several options for structuring debt service on UTGO bonds. They are:

a. Level Debt Service
   This method requires that the annual debt service payments must be approximately the same over the life of the UTGO bonds, even though relative proportions of principal and interest may vary. In early years most of each payment represents interest, while in later years most of each payment represents principal.

b. Alternative Debt Service
   This method permits a district to schedule principal maturities in whatever manner best suits its goals.
   (1) Front-End Loading
      A district may choose to front-end load principal payments, scheduling greater amounts of principal to mature in early years and perhaps shortening the total life of the issue. Front-end loading has the effect of increasing annual debt service payments in the early years while lowering the net effective interest rate and reducing the total interest paid over the life of the issue.
   (2) Back-End Loading
      Alternatively, a district may choose to back-end load principal payments, scheduling greater amounts of principal to mature in later years. Back-end loading usually has the result of reducing annual debt service payments in early years, increasing the net effective interest rates and increasing the total interest paid over the life of the issue.

There are other factors to consider in designing the schedule of principal maturities. One is the maturity schedule's effect on property tax levy rates. If taxes are already being levied for previous bond issues, a district may wish to schedule maturities on the new issue so as to reduce the immediate increase in levy rates. Larger amounts of principal would be scheduled to mature after levies for previous issues are reduced or eliminated. Districts frequently utilize debt service structures that provide for multiple bond sales over time to match construction timelines.

Section 408 – Investment of Funds

Funds raised for school building construction should be invested promptly and prudently to maximize funds ultimately available for use by the district. The methods chosen for investment will vary in consideration of project cash flow requirements. The district is reminded that all of its available funds must be disbursed toward the project before any state matching funds can be utilized. Further, the district, through consultation with its bond counsel, must be cognizant of federal tax implications of the investment of funds.

Section 409 – Expenditure of Funds

A project schedule must be prepared cooperatively by the district and its financial advisor, underwriter, and architect/engineer. This schedule should anticipate the dates and amounts for all cash flow requirements for all moneys obtained by the bond issue throughout the period of time required for completion of the project and redemption of the bonds and to satisfy expenditure rules of federal tax law.

Participants

Legend

■ Primary Responsibility for Action

☐ Participation in Action

	Local					State							City/County								Consultants																			
Activity	Citizens Students	SD Board of Directors	SD Superintendent	SD Staff	SD Hazardous Materials Designated Person	State Board of Education	Superintendent of Public Instruction	Public Disclosure Commission	Energy Office	Department of Ecology	Labor and Industries	Electrical Inspector	Planning Officials	Building Officials	Fire Marshal	Public Works	Health Officials	Electrical Inspector	County Auditor	County Treasurer	Program Management	Financial Advisor	Bond Underwriter	Bond Counsel	Legal Counsel	County Prosecutor	Real Estate Broker	Geotechnical Engineer	School Facility Planner	Land Surveyor	Educational Consultant	Construction Manager	Architect/Engineer	Value Engineering Team	Constructability Review	Building Commissioning	Contractors	Testing Laboratories	Other	Remarks
Financing (Chapter 4)																																								
10 Establish Capital Project Budget		▨	■	▨																	▨	▨	▨						▨				▨							
11 Select Financing Plan		■	▨	▨																		▨	▨																	
12 Prepare Bond Election Resolution			▨	▨																		▨	▨	■	▨	▨														
13 Organize Election Steering Committee	▨							▨																																
14 Adopt Bond Election Resolution		■																						▨																
15 Deliver Resolution to County Auditor			■	▨															▨					▨																
16 Conduct Bond Election	▨	▨	▨	▨															■		▨																			
17 Prepare Bond Resolution & Notice of Sale																						▨	▨	■																
18 Prepare Bond Prospectus																						■	■																	
19 Sell Bonds/Closing		▨																		▨			■	■	■															
20 Schedule Cash Flow Requirements																					■	■	■																	
21 Invest Bond Proceeds			■																	▨		■	▨																	

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Section 501 – Site Selection

The site selection team is assembled and directed by the appropriate school official. Site selection criteria are reviewed and assimilated. Potential sites are identified and examined. The most promising sites may require specialized analyses. After evaluation of all sites, the selection team recommends one or more sites for purchase to the school district's board.

Each parcel of land identified as a potential school site should be thoroughly examined to determine its suitability in terms of educational plan, accessibility, cost, size, environmental impact, and numerous other criteria. Each site and surrounding property should be evaluated upon both its present and possible future uses. In evaluating the property, the following questions should be addressed:

Site Characteristics

- Is the site the right size and shape?
- Will the site support the educational program?
- Is the site expandable in the future or will it support expansion of facilities in its present configuration?
- Is the topography conducive to desired site development?
- Does the land drain properly? Will it comply with storm water management requirements?
- Have tests been made to determine underground conditions particularly as to suitability for building foundations?
- Does the site have desired trees and other natural vegetation?

- **Legal Requirements** Sections 504, 505, and 506.)
- Will a variance or rezone be required?
- Is the site in a flood plain or other such hazardous area?
- Are there any easements of any nature affecting the use of the site?
- Is the site available and free of all encumbrances?

Location Considerations

- Is the site located conveniently for the majority of pupils?
- Is the site near other community services such as library, parks, and museums?
- What is the relation of the site to existing educational facilities?
- How is surrounding land zoned—will its development enhance the school site?
- Can the land be shared with other community facilities and organizations, such as parks?
- Will the site provide desirable open space where it is needed by the community?
- Is the general environment aesthetically pleasing?

Infrastructure Considerations

- Are adequate services for water (for fire flow and domestic use) and sewer available at the site?
- What energy sources are available (i.e., electricity, natural gas), and is there the potential for alternative energy use and/or shared use?

Site Access

- Is the site easily accessible for vehicles?
- Are the road and traffic patterns surrounding the site suitable?

Health and Safety

- Is the site safe?
- Is the air quality healthful?
- Is the site free of industrial and traffic noise?
- Is the site served by public agencies: police, fire department, public transit, etc.?

It may not be possible to locate a site that will totally accommodate all needs. Compromise may be unavoidable. Nevertheless, the selection committee should discuss priorities and agree on what qualities are indispensable.

For additional information on site selection criteria, refer to safer schools/goals and strategies included in the appendix.

Section 502 – Site Review by OSPI

The SBE has established site recommendations for projects receiving state match funding. These are enumerated in WAC 180-26-020.

OSPI conducts an on-site review and evaluation of the proposed site for new construction or the existing site for modernization projects. An OSPI regional coordinator will meet with a member of the district's administrative staff to visit the site and to respond to the questions on the OSPI site review (Exhibit 5A).

Section 503 – Site Review by Local Code Agencies

Before a new school facility is constructed, an addition is made to an existing facility, or an existing school facility is remodeled, the district shall consider completing a site review or predesign conference with all appropriate local code agencies in order to determine design constraints. At a minimum, such a review should include building, fire, and health officials.

Concerns of the health department with respect to site approval include:

- Adequacy of water supply.
- Adequacy of sewage disposal.

- Site size.
- Acceptable noise levels.
- Presence of environmental contaminants such as radon, toxic substances, and air pollution.

Present health regulations stipulate maximum acceptable noise levels from any sources at proposed new school construction sites. Sites exceeding these sound levels are not considered acceptable unless an appropriate plan for sound control reduction is included in the new construction proposal and is approved by the health officer.

Section 504 – State Environmental Protection Act (SEPA)

The Washington State Environmental Protection Act (SEPA), RCW 43.21C.120, and the SEPA rules, WAC 197-11-904, require all state and local governmental agencies to consider environmental values both for their own actions and when licensing private proposals. The act also requires that an environmental impact statement (EIS) be prepared for all major actions significantly affecting the quality of the environment.

A portion of WAC 197-11-960 comprises an environmental checklist form which must be answered as completely as possible in order that the agencies involved may determine whether or not a proposed school facility is a major action which would require the preparation of an environmental impact statement. This form does not supersede or void application forms required under any other federal or state statute or local ordinance but rather is supplementary.

The district may ascertain if it is the appropriate lead agency having jurisdiction over the proposed facility (action) and may decide if a project is exempt from SEPA requirements. If a district determines it does not have exempt status, it may have its architect/engineer or consultant complete the environmental checklist. The lead agency must consider the checklist information and ascertain whether or not the action will have a significant effect upon the quality of the environment.

If a threshold determination by the lead agency declares the proposal to be non-significant and there are no appeals, the district may proceed with the project. A copy of the determination of nonsignificance and a copy of the completed environmental checklist must be transmitted to the Environmental Review section, Department of Ecology, for permanent recording of the determination. (See appendix for address.)

If a determination of significance is issued by the lead agency, a draft EIS and a scoping form must be prepared, reviewed by all appropriate authorities (generally, all those who must issue permits and/or review permits for any portion of the work), and published.

The district's compliance with the requirements of chapter 197-11 WAC must be confirmed by submitting the SEPA documents to OSPI.

Occasionally, public hearings must be conducted on the EIS, and a final EIS with public comments would be required. Guidelines for preparation and review of the EIS are available from the Environmental Review section, Department of Ecology.

Section 505 – Growth Management Act (GMA)

The Growth Management Act (GMA) has significant importance to districts in the counties which are planning under the act. Districts will obtain maximum benefit from the GMA by actively participating in the planning process with the city or county planning authority.

Growth management planning may benefit districts by providing information and location of planned growth in the community, guidance in locating school sites, and, perhaps, financial assistance for new school construction in the form of impact fees. Disadvantages of growth management planning are that districts may find themselves severely restricted in locating new schools and in obtaining necessary zoning approvals.

The GMA requires cities and counties to designate urban growth areas (UGAs) as limits of services such as water, sewer, and streets. The locating of school facilities within the UGAs may be limited either directly through land use regulations or indirectly through restrictions on utilities. School facilities outside UGAs that require water and/or sewer service may need extraordinary measures such as service lines dedicated solely to (and paid for by) the district. School facilities not listed in the capital facilities element of the local comprehensive plan may not be approved.

At least two of these elements, land use and capital facilities plan, are critical to school districts. The GMA requires comprehensive plans to include:

1. A land use element designating the proposed general distribution and general location and extent of the uses of land for public facilities, which includes schools.
2. A capital facilities plan element consisting of:
   - An inventory of existing capital facilities owned by public entities, showing the locations of facilities and their present level of service.
   - A forecast of the future needs for such capital facilities based on their proposed level of service.
   - The proposed locations and capacities of expanded or new capital facilities.
   - At least a six-year plan that will finance such capital facilities within projected funding capacities and will clearly identify sources of public money for such purposes.

- A requirement to reassess the land use element if probable funding falls short of meeting existing needs and to ensure that the land use element, capital facilities plan element, and financing plan within the capital facilities plan element are coordinated and consistent.

Local jurisdictions are authorized to impose impact fees for school facilities. The ability of a local jurisdiction to assess impact fees for school districts is dependent upon the adoption of a capital facilities plan element and an enabling ordinance.

Section 506 – Hazardous Waste Laws

Federal and state laws require identification, investigation, and clean up of sites contaminated with hazardous substances. The federal law is the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), commonly referred to as Superfund, and the state law is Model Toxics Control Act (MTCA). These laws impose potential liability on owners and purchasers of properties that are contaminated and require clean up.

To minimize risk in terms of project delay and cost, purchasers are advised to conduct an appropriate investigation into the history of activities and business practices with respect to the property before purchasing or leasing it. Otherwise, the purchaser may be accepting responsibility and liability for cleanup for hazardous waste contamination.

Section 507 – Site Acquisition

The chosen site may be acquired by one or more of the following legal methods:

- Purchase from the owner.
- Acceptance as a gift from the owner.
- Condemnation of private property with purchase at fair market value (RCW 28A.335.220).
- Receipt of surplus government property.
- Lease of state-owned property.

State laws affecting the securing of proposals for sale, appraisals, counteroffers, and options should be investigated thoroughly.

Section 508 – Timing of Site Acquisition

Site acquisition may occur at the following times:

Several years prior to development:

Early site acquisition during a period of an expanding and inflationary economy is undoubtedly a wise and prudent activity for all districts to consider. Effective selection of a site prior to the identification of a specific building program requires availability of funds for acquisition, availability of suitable land, and considerable confidence in the advance planning process discussed in Chapter 3. Early identification of school sites can reduce the design and construction time involved in the implementation of a school building project, thus tending to reduce costs.

At the time of development:

In districts where enrollment conditions and projections do not justify such an anticipatory approach as early acquisition, selection and purchase of sites can be accomplished on the basis of known needs. A more astute site selection can normally be made under these conditions because educational specifications will have been developed and the architect/engineer for the project may have been selected and be available for participation in the evaluation of prospective sites.

Section 509 – Site Acquisition Funding

With the exception of land secured on lease from the State of Washington, title to the real property of the site shall be vested in the school district, with any or all encumbrances clearly stated in the title documents. Any title that contains encumbrances should be accompanied by certification from the district's legal counsel stating that such encumbrances will not interfere detrimentally with the construction, operation, and useful life of the school facility.

State financial assistance is not available to aid in funding site acquisition nor other associated costs, including geotechnical reports and boundary or site surveys.

Sources of funding for site acquisition available to districts include:
- Passage of a capital levy.
- Passage of a bond issue for site acquisition.
- Transfer of funds from the general fund to the building fund.
- Outside sources (developer dedication, growth impact fees, or mitigation payments).
- Sale of district-owned surplus property.
- Nonvoted debt.

Section 510 – Survey of Essential Site Data

Prior to design studies for site utilization and building placement, a survey of the physical site characteristics and a title search are necessary. This site survey must be performed by a land surveyor registered in the State of Washington. The site survey, a responsibility of the district, should contain the following information for the architect/engineer:

1. Title of survey, property location, certification, and date.
2. Scale and compass orientation.
3. Tract boundary lines, courses, and distances, including all easements.
4. Names of abutting property owners.
5. Benchmark with assumed elevation.
6. Names and locations of all existing road right-of-ways on or near the tract.
7. Location of roads, drives, curbs, gutters, steps, walks, paved areas and the like, indicating types of materials or surfacing.
8. Road elevation for all improved roads on or adjacent to property; improved gutter elevations on property line side. Survey should include opposite side of adjacent street.
9. Location, type, size, and flow of all existing storm and sanitary sewers on or contiguous to the tract, including top and invert elevations of all manholes and inlet and invert elevations of other drainage structures.
10. Location, type, and size of all water and gas mains, meter boxes, hydrants, and other appurtenances.
11. Location of all utility poles; natural gas and utility pipelines; and cable TV, telephone, and power lines, with indication of nearest leads either on-site or off-site, pertinent information and ownership of all utilities.
12. Location of all existing structures on the site, including buildings, foundations, bridges, wells, walls, fences, and rock outcroppings.
13. Location of all swamps, springs, streams, drainage ditches, wetlands, lakes, and other bodies of water and line of maximum flood plain if applicable.
14. Outline of wooded areas; location of trees, identification of trees by type, identification of trees with trunks over 8 inches in diameter at waist height, and location and identification of any other significant flora and fauna.
15. Elevations throughout the site sufficient to develop a complete and thorough contour map for site improvements.
16. Construction of permanent property corners such as concrete monuments.

OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
School Facilities and Organization
Old Capitol Building
PO BOX 47200
OLYMPIA WA 98504-7200
(360) 753-6702 TTY (360) 664-3631

SITE REVIEW STUDY

SCHOOL DISTRICT (enter name and district no.)		COUNTY (enter county name)
PROPOSED SCHOOL (enter school name)		GRADE LEVEL
LOCATION OF SITE		DATE APPROVED
SITE SIZE ____________ acres	Estimated number of students: ____________	REQUIRED SITE SIZE ____________ acres

QUESTIONS	YES	NO	PEND
1. Is the site size and shape adequate for grades to be served?			
2. Will the site support the educational program?			
3. Is the site located conveniently for the majority of pupils?			
4. Is the site near other community services such as library, parks, and museums?			
5. Is the site located near existing educational facilities?			
6. Will the surrounding zoning and development enhance the school site?			
7. Can the site be shared with other community facilities (parks)?			
8. Is the site expandable in the future or will it support expanded facilities?			
9. Is the topography conducive to desired site development?			
10. Is the general environment aesthetically pleasing?			
11. Does the land drain properly and are other soil conditions good?			
12. Does the site have desired trees and other natural vegetation?			
13. Have tests been made to determine underground conditions (geotech)?			
14. Is the site easily accessible for service vehicles?			
15. Are the road and traffic patterns surrounding the site suitable?			
16. Is the site safe?			
17. Is the air quality healthful?			
18. Is the site free of industrial and traffic noise?			
19. Is the site served by public agencies (police, fire dept., etc.)?			
20. Are adequate water and sewer services available at the site?			
21. Are there any easements of any nature affecting the use of the site?			
22. Will site development costs be excessive?			
23. Are any of the following energy sources available at the site? ☐ Gas ☐ Electricity ☐ Solar ☐ Geothermal ☐ Other ____________			

GENERAL EVALUATION OF SITE (Including explanation of any negative responses above)

SITE APPROVED: ☐ Yes ☐ No	BY ______________________ DATE ____________ Facilities and Organization

FORM SPI 1511 (6/2000)

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Participants

Legend

■ Primary Responsibility for Action

☐ Participation in Action

Activity	Local					State							City/County								Consultants																			Remarks
	Citizens/Students	SD Board of Directors	SD Superintendent	SD Staff	SD Hazardous Materials Designated Person	State Board of Education	Superintendent of Public Instruction	Public Disclosure Commission	Energy Office	Department of Ecology	Labor and Industries	Electrical Inspector	Planning Officials	Building Officials	Fire Marshal	Public Works	Health Officials	Electrical Inspector	County Auditor	County Treasurer	Program Management	Financial Advisor	Bond Underwriter	Bond Counsel	Legal Counsel	County Prosecutor	Real Estate Broker	Geotechnical Engineer	School Facility Planner	Land Surveyor	Educational Consultant	Construction Manager	Architect/Engineer	Value Engineering Team	Constructability Review	Building Commissioning	Contractors	Testing Laboratories	Other	
Site Selection (Chapter 5)																																								
22 Assemble Site Selection Team			■	☐																																				
23 Site Selection Activities																																								
A Identify Potential Sites			■	☐																							☐													
B Examine & Evaluate Each Site			■	☐																							☐						☐							
C Ascertain Site Acquisition Costs			☐	☐																							■													
D Identify Preferred Sites																																								
E Predevelopment Meeting				■									☐	☐	☐	☐	☐																							
F Geotechnical Study				☐																																				
G Select and Acquire Site		■	■	■																					■	■				☐										
24 Survey Boundary and Topography				☐																																				

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Chapter 6 Page

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Section 601 – Purpose

The educational specification process focuses on a district's development of program requirements for individual structures. The purpose of the educational specifications is to define and communicate to the architect/engineer the district's goals and requirements for what a given facility **should** be. The educational specifications should reflect the needs, goals, and objectives as defined in the study and survey.

Section 602 – Characteristics of Educational Specifications

Educational specifications should describe the following:

1. Instructional subjects and methods.
2. Instructional and noninstructional activities that will be in the proposed facility.
3. Spatial relationship between the facility and the site.
4. Interrelationship of instructional activities with each other and with non-instructional facilities.
5. Major items of furniture and equipment to be used.
6. Special environmental provisions which would improve the learning environment and promote staff efficiency.
7. Future needs and flexibility requirements.

Districts may consider the development of standardized educational specifications for the various types of school plant facilities within the district, i.e., elementary schools, middle/junior high schools, and high schools. Standardized specifications can augment uniformity of program from school to school within the district and eliminate some duplication of effort. A standardized specification, however, cannot eliminate the need for an individually considered specification for specific projects as each project will have its own unique characteristics.

Section 603 – Educational Specification Team

The preparation of educational specifications is the responsibility of the district personnel with or without the assistance of an outside consultant. The team leader is responsible for coordinating the work and time schedule and guiding of the final report.

The selected working team should represent diversified interests, skills, and knowledge. The team may utilize the participation of teaching staff, maintenance and operations staff, students, parents, and other community members.

If requested, OSPI regional cordinators will provide guidance to the district regarding the process of developing educational specifications.

Section 604 – Use of Consultants

Educational specification consultants may offer considerable experience in preparing educational specifications and organizing the process.

If the architect/engineer has been employed prior to the preparation of the educational specifications, its services in providing technical assistance can be of considerable value. The participation of the consultant in formulation of the educational specifications should be limited strictly to advisory services; the consultant should not be permitted to formulate district policy on educational matters.

Section 605 – State-Assisted Projects

Educational specifications are required for each school facility construction and modernization project exceeding 15,000 square feet in area if the district is to receive state financial assistance. Interdistrict transportation cooperatives are exempt from this requirement.

Conditions for receiving state financial assistance in funding the preparation of educational specifications are:

1. The district contracts with a consultant for the preparation of educational specifications.
2. The amount of the state assistance that a district is eligible to receive for the consultant services shall be the state matching percentage for that district multiplied by the greater of:
    a. The product of one-quarter of 1 percent of the area cost allowance multiplied by the square foot area computed at the time of bid.
    b. Or $10,000.

The amount of financial assistance received by a district for educational specifications is not to be construed to place any limits on the cost of the preparation of those specifications. Districts are encouraged to negotiate fees for consultant services with careful consideration of the actual scope of work required. Work performed by the district's employees in preparing the educational specifications is not reimbursable.

Section 606 – Components of Educational Specifications

The educational specifications should state what is good educationally, not what may be common practice. They should not be limited by economic constraints or other restrictions. They should be concerned with attaining improved educational experiences and conditions.

Table 6.1 Suggested Outline for Educational Specifications

Chapters	Contents
Project Rationale	• Description of planned project—new construction, addition, modernization, new-in-lieu, gross area. • Necessity of the project—growth, update to comply with codes. • The intended use and purpose—primary, elementary, vocational, etc.
Community Data	• Description of community history and citizenry as relates to educational needs. • Geographic area to be served by the project. • Location of the project site.
Educational Plans	• Curriculum plan—a statement of the project's philosophy, goals, and objectives. • Instructional method—the methods used to attain the goals and objectives, clarifying such matters as individual and team teaching. • Staffing plan—identification of administrative, classified, and certified staff.
General Building Considerations	• Circulation—anticipated traffic patterns, volume, frequency. • Vehicle access and parking. • Building security. • Technology and communication systems. • Community use—spaces and hours utilized. • Maintenance. • Other considerations—resource and energy conservation.
Activity Areas	For each area of the educational programs, provide the following: • Goals and objectives for the area. • Planned usage. • Number of students and staff. • Type of instruction—lecture, team teaching. • Duration of utilization—day and hours. • Relationships to other activities. • Spatial requirements. • Support requirements—conference, preparation and planning areas, storage. • Environmental variables—heating, ventilating, lighting. • Utilities and communications—power, voice, data, video. • Display requirements. • Furniture and equipment. • Special or other considerations.

Participants

Legend

■ Primary Responsibility for Action

▨ Participation in Action

Activity	Local					State							City/County							
	Citizens/Students	SD Board of Directors	SD Superintendent	SD Staff	SD Hazardous Materials Designated Person	State Board of Education	Superintendent of Public Instruction	Public Disclosure Commission	Energy Office	Department of Ecology	Labor and Industries	Electrical Inspector	Planning Officials	Building Officials	Fire Marshal	Public Works	Health Officials	Electrical Inspector	County Auditor	County Treasurer
Educational Specifications (Chapter 6)																				
25. Assemble Ed. Spec. Formulation Team			■	▨																
26. Employ Educational Specifications Consultant			■	▨																
27. Prepare Educational Specifications	▨		▨	▨																
28. School Board Approval of Ed. Specs		■																		

Activity	Consultants																			Remarks
	Program Management	Financial Advisor	Bond Underwriter	Bond Counsel	Legal Counsel	County Prosecutor	Real Estate Broker	Geotechnical Engineer	School Facility Planner	Land Surveyor	Educational Consultant	Construction Manager	Architect/Engineer	Value Engineering Team	Constructability Review	Building Commissioning	Contractors	Testing Laboratories	Other	
Educational Specifications (Chapter 6)																				
25. Assemble Ed. Spec. Formulation Team	▨																			
26. Employ Educational Specifications Consultant	▨										▨									If Required
27. Prepare Educational Specifications	▨										■									If Required
28. School Board Approval of Ed. Specs																				

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Section 701 – The Team Concept

Teamwork is defined as "a cooperative effort by the members of a group to achieve a common goal."

As building projects become more complex and regulations governing those projects increase, more members of a group are required to navigate a project from inception to occupancy.

The local school board and/or district administrators are responsible for selecting the project team. On a typical school building project, the team selected may be working together for several years. It is also vitally important that all team members be available for the duration of the project and that they be committed to the team approach.

Section 702 – Team Members

Each team member is a resource and brings expertise to the project in his or her specialty. The following team members are typically involved in a school facility project.

Administrative and Instructional Staff

A school's administrative and instructional staff, utilizing existing facilities on an almost daily basis, provide an excellent planning resource. Administrators and instructors can assist in the development of the educational specifications and their translation into a new facility plan.

Support Staff

Those persons responsible for administrative services, operation and maintenance of the facility, food service, health, safety, etc., can provide insight into factors such as student flow, security, kitchen equipment selection, safety, etc. Their knowledge of local conditions and resources will assist greatly in making decisions concerning maintenance and operating costs associated with design proposals.

Students

Students, insofar as their maturity permits, can be invited to participate in the planning process.

Citizens

Citizen participation has become recognized as a valuable contribution to school facility planning, especially in the formulation of educational goals and objectives. Utilizing citizen's advisory groups in planning is a way of ensuring that a school facility realizes its potential as a community resource.

Legal Counsel

Legal counsel is often necessary. This legal work includes reviewing contracts for design services and advising on possible issues resulting from the building project.

Educational Planner

If educational specifications are desired or required, it is advisable to have a planner guide the team to consensus. This person should be experienced in group dynamics and leadership and be familiar with educational programs.

Architect/Engineer

The architect/engineer is the professional who will be contractually responsible to the school board throughout the project. The architect/engineer translates the educational specifications into design concepts which are then developed into building plans and specifications. The architect/engineer may function in an advisory capacity during the study of the school housing situation, site selection, and educational planning processes.

Engineering Consultants

It is mutually advantageous that engineering consultants participate in the early planning process so that they can contribute their expertise and become familiar with the problems, issues, and goals relative to the project. Typical consultants are specialists in the design and/or engineering of:

- Heating, ventilation, and air conditioning.
- Landscaping.
- Lighting/electrical.
- Plumbing.
- Sewer/septic systems.
- Stormwater systems.
- Structures.

Technical Consultants

Individuals who comprehend the complexities of our advanced technology are often indispensable. Their assistance can be sought on a variety of specialized areas such as:

- Acoustics.
- Computer networking.
- Energy conservation.
- Food service.
- Land surveying.
- Soils engineering.
- Telephone/communications.
- Traffic engineering.
- Wetlands biology.
- Wildlife biology.
- Value engineering.
- Constructability reviews.
- Commissioning.

Construction Management

Construction management (CM) is a delivery system that applies modern management techniques to planning, design, construction, and project commissioning in order to control time and costs and ensure quality for school district projects.

CM may include a comprehensive array of professional activities spanning all phases of a project starting at the study phase and continuing through budget development, funding, education specification preparation, design, construction, and commissioning/warranty period. The type and level of services applied to a particular project should be one which is appropriate to the size, kind, and complexity of the project and the needs of the school district.

CM may be performed by a qualified member of the school district staff or may be selected on the basis of professional qualifications and experience from among firms and consultants offering professional CM services.

The school district is responsible for developing and implementing a project management plan that will achieve the goals of the school district, OSPI, the state assistance program, and community within budgetary and schedule parameters established by the plan.

The CM process is most effective when continuity is provided from the beginning of the project, allowing the school district and the project team to identify and resolve issues of value, quality, and constructability prior to construction. It is recommended that a qualified project manager be assigned and become involved during the advance planning (study and survey) phase.

The CM process includes monitoring design and construction to ensure that the school district's quality goals are realized in the completed project.

(See Exhibit 7D for construction management guidelines.)

Project Representative

It is advisable that the school board designate a capable in-house project representative to the team who will participate fully in all activities concerning the project from the design phase through completion and evaluation of the finished project. This person must be able to communicate effectively with other design team members and should have experience in design and construction activities and the coordination thereof.

Constructability Review

An optional discipline (for projects less than 50,000 square feet) performed by an independent multidiscipline consultant. Performing a constructability review of design involves reviewing contract documents and identifying potential claim or problem areas and deficiencies that may occur during the construction phase of a project. The purpose is to identify errors, ambiguities, omissions, discrepancies, and conflicts in the construction documents. The goal of the review is to achieve the lowest possible bid and minimize the chances of change orders and claims after construction begins.

Commissioning
This is a systematic process that may begin in the design phase, lasting at least one year after project closeout. Commissioning should include the training of operating staff and should ensure, through documented verification, that all building systems perform interactively according to the documented design intent and the owner's operational needs. Commissioning is optional (for projects less than 50,000 square feet) to school districts, but it is important for maximizing potential facility operation through the useful life of the facility.

Section 703 – District Policy for the Selection of Architectural/Engineering Consultants

Each district shall establish a written policy and procedure for selecting professional consultants in compliance with state law. This law requires that districts publicly announce requirements for architectural and engineering services and negotiate contracts for these services on the basis of demonstrated competence and qualifications for the type of professional services required and at fair and reasonable prices.

The standard processes for selecting the architect/engineer are comparative selection and design competition.

Comparative Selection
This is the typical method prescribed by state law for utilization by state and local agencies and school districts. The primary process involves screening an architect/engineer from a group of candidates who have submitted information and materials concerning their qualifications to the district.

Design Competition
A method wherein architects/engineers are invited to respond to a design program formulated by the district with illustrated solutions and proposals for evaluation by the district. This process is time-consuming, expensive, and is rarely used for selecting an architect/engineer for a school facility. A fee may be paid to participants.

Section 704 – Architect Engineer Selection Process

State law establishes specific requirements for the selection and contracting of architectural and engineering services for public buildings.

For the district, the process includes:

Advance Publication

The district shall publish in advance its requirement for professional services. The announcement shall state concisely the general scope and nature of the project or work for which the services are required and the address of the district's representative who can provide further details.

The district may comply with this section by either:

1. Publishing an announcement on each occasion when professional services provided by a consultant are required by the district.
2. Announcing generally to the public its projected requirements for any category or type of professional service.

Statement of Qualification

The public announcement should invite submittals of statements of qualifications from those providers of professional services who wish to be considered by the district. These submittals should provide current information and be updated as needed or, at least, annually. It is the responsibility of the interested firms to maintain current qualifications on file.

Evaluating Qualifications

The district should establish or maintain a file of statements of qualifications to use in the evaluation process. The district should review the qualifications in order to narrow the field of professionals to be considered. This should be a manageable number for interviews. One to three firms may be appropriate on a small project, and perhaps five or more on a large project. The interview list should include only qualified firms with which the district would be prepared to contract.

Criteria for Evaluation

The selection of a qualified architect/engineer is of vital concern. The district should know precisely which member of the architect/engineer firm will supervise the project so that there will be a continuity of personnel, relationships, and communication throughout the project. Qualified architectural and/or engineering firms exhibit the following:

- Ability to cooperate and communicate with others involved in the project.
- Ability to provide insurance.
- Adequate management and personnel for the project.
- Client references.
- Creative and artistic ability.
- Experience in school facilities.
- Financial stability.
- Past performance in meeting time and budget constraints.
- Technical competence.
- Valid license to practice their profession in the state of Washington.
- Type and level of insurance (refer to Section 707).

Interviews

The purpose of the interview is to provide an opportunity for the selection committee to personally meet with the applicants; address specific questions to them; and obtain more detailed information on staffing, process or procedure, and other items of interest.

Selection

The district is required by law to select the firm deemed to be the most highly qualified based upon criteria established by the district for the proposed project.

It is important that the selection panel record its ranking procedure and document evaluation sheets, charts, or graphs to support its comparisons and ratings. Additionally, in order to support the negotiations that follow, the selection panel must rank the most qualified applicants. After selecting the highest ranked firm, the district begins negotiations on the scope of services and the compensation.

Section 705 – Contractual Relationships and Documents

The planning, design and construction of a school facility involves several important legal contractual relationships. On a typical school construction project, contracts set forth the relationship between the district and the architect/engineer and between the district and the contractor.

A contract sets forth expectations and actions of the parties to the agreement. Risks associated with the project are allocated to the appropriate parties. Risks are most successfully allocated to the party who has the most control over the project or who can best protect against the risk on that portion of the project.

Because of the complexity associated with construction projects, the unique nature of design and construction, and the existence of a body of case law and court decisions affecting construction, sets of standardized contract documents exist. These documents provide a common basis for establishing legal and business relationships within the design and construction process. They carefully integrate elements of contractual relationships with current law, case law, and industry standards and thereby provide more predictable and reliable performance of the parties.

Standardized owner-architect/engineer agreements or other standardized documents (including the call for bid and instructions to bidders) may be modified or tailored to a specific project. These documents should reflect the district's business practices and its capabilities and policies. However, extensive modifications that radically change responsibilities or risk should be approached with caution.

The district should carefully weigh the advantages of using standardized documents against the cost of preparing changes and any potential negative effects on the project. It is suggested that the district have its legal counsel help prepare and/or review all contract documents prior to signing.

Section 706 – Contracting with the Architect/Engineer

Architectural/engineering contracts differ from construction contracts in that construction documents establish the scope of services and the bid establishes the price. As described in Section 704, the architectural/engineering contract is negotiated after a firm has been selected as the most highly qualified. The district should request a proposal from the firm identifying the firm's scope of services and compensation for these services as the basis for negotiation.

For architectural/engineering contracts, scope of services and compensation are usually arranged as follows:

1. Basic services or those listed on the standard form of architect's services are those services necessary to construct a typical school project and usually include architectural, structural engineering, mechanical engineering, and electrical engineering. Compensation for basic services is usually either a stipulated lump sum or a percentage of construction costs.
2. Additional services are those design services not crucial to the construction of a typical school project that may be necessary or desired by the district for a particular project. Examples of additional services are landscape design, interior design, colored renderings, and presentation models. Compensation for additional services such as landscape or interior design can be a stipulated lump sum, a percentage of the construction costs, or on an hourly fee basis. Where the scope of each additional service can be identified in advance as in the case of renderings or models, the fee for each service can be a stipulated sum.
3. Change orders or contingent additional services are those services that are required to meet unexpected situations that may arise during the course of a project. These services may be compensated by either hourly rates or by stipulated amounts if the scope of services can be determined.

State matching funds for architectural and engineering fees are defined in WAC 180-27-070 (see Table 7.1 and Exhibit 7B).

Hourly rates should only be used where the scope of services cannot be predetermined. A district might consider a maximum amount not to be exceeded without written approval when authorizing hourly services.

Another consideration in determining the scope of architectural/engineering services is the consistency of roles and responsibilities of the parties to the different contracts; for example, omitting a service from the design contract which the architect/engineer is obligated to perform under either the construction contract and/or by the general conditions.

The successful conclusion of negotiating with the most qualified architectural/engineering firm produces a contract which gives the district the professional design services it needs to complete the proposed project at a compensation that the district determines to be fair and reasonable. If the district is unable to satisfactorily negotiate a contract with the most qualified firm, negotiations are formally terminated. Chapter 39.80 RCW then allows the district to begin negotiation with the next most qualified firm until a satisfactory agreement has been reached or the process again terminated.

A properly executed copy of the contract between the district and the architect/engineer shall be submitted to OSPI as part of the Form D-7 submittal.

Section 707 – Professionals' Liability Insurance

Liability insurance is available to design professionals to protect them from losses resulting from their own errors or omissions. Such insurance indirectly protects the district since the district might not be able to recover its own losses incurred through the errors or omissions of an uninsured (or underinsured) architect/engineer.

Some design firms elect to self-insure to avoid the relatively high cost of such insurance. Many other firms regularly carry such insurance for all of their projects and include its costs in their quoted fees.

Districts are well advised to investigate the insurance status of all members of its architect/engineer team and:

- Evaluate the protection offered to the district.
- Ascertain the cost of this protection.
- Consider the risk exposure to the district from the type and scope of the project being contemplated.

Consultation with the district's insurance agent and legal counsel will assist the district in determining the necessity of such insurance for each project. If this insurance is required, the district should be certain that all members of the design team have it.

It is the district's responsibility to determine if the architect/engineer's insurance coverage is adequate.

Section 708 – State Participation in Architectural Engineering Fees

Provisions for the allocation of state funds for the construction of facilities are defined in chapter 180-27 WAC. This chapter of the Washington Administrative Code also defines the state architectural/engineering fee matching limitations.

Architectural/engineering fees for services shown in Table 7.1 are based on a percentage of the construction cost relative to the square foot size of the building project under consideration. The fee structure shown is for new construction.

When dealing with an approved modernization project, the matching fee is limited to 1.5 times the percentage shown in Table 7.1 relative to project size. See Exhibit 7B for examples of calculations used to determine the state matchable amount for fees for new construction and modernization.

State match funding of architectural/engineering fees are based on the area cost allowance.

Table 7.1 Architectural/Engineering Fee Schedule

Architectural/Engineering Team Fee Matching Limitations for New Construction Projects

Square Feet of Construction	Percent of Construction
Under 3,700	10.00
3,700	9.00
7,350	8.75
11,000	8.50
14,650	8.25
18,300	8.00
25,700	7.75
36,700	7.50
55,000	7.25
73,400	7.00
101,000	6.75
128,450	6.50
156,000	6.25
183,500 and above	6.00

The fee schedule set forth in the Washington Administrative Code is established for the purposes of the allocation of state moneys for matching purposes. However, it is the responsibility of the district to negotiate a contract at a price that the district determines is fair and reasonable and to take into account the estimated value of services to be rendered as well as the scope, complexity, and professional nature thereof.

In addition, the district should note that the state's matching formula, established by the SBE, relates to an area cost allowance which functions as a funding driver for state financial assistance. This allowance changes monthly and is based on an annual schedule adopted by the SBE. The area cost allowance may not relate to the total cost required for proper site development, responding to current growth/environmental regulations, project technological programming requirements, or other special items particular or peculiar to the district's project.

These items need to be discussed with the district's architect/engineer during the negotiation process.

Exhibit 7A – Examples of Public Announcements for Consultants

Mabton School District #120

Constructability Review and Construction Management Services

Submittal Date: Feb. 18

The Mabton School District #120 is requesting proposals for a Constructability Review for upcoming modernization work (52,313 sq. ft.) and new construction (approximately 3,095 sq. ft.) at Mabton High School. The Review must comply with WAC 180-27-080 and will take place in May of 2000. The final report must be submitted on or about June 1, 2000.

The Mabton School District #120 is also requesting proposals for the services of Construction Manager for this same project. The Construction Manager services shall comply with WAC 180-27-102 and will be required from February of 2000 until approximately December of 2001.

The School District will review all proposals and schedule interviews accordingly. Questions should be directed to RFBA, Architect and Planners, telephone (509) 758-9894.

Proposals will be accepted until 4 p.m. February 18, 2000. Send one copy of proposals to Mabton School District, Post Office Box 37, Mabton, WA 98935 and one copy to Robert F. Broyles, AIA, Architects and Planners, Post Office Box 10, Clarkston, WA 99403.

Dates of publication in the Seattle Daily Journal of Commerce, February 10 and 17, 2000.

2/17 (114729)

FIRST PUBLICATION

Monroe School District No. 103

Architectural Services

Submittal Date: April 6

Request for Statement of Qualifications

The Monroe School District is requesting statements of qualification from architectural firms. In seeking professional services, the District is requesting proposals from firms with recent experience in school construction projects.

The Monroe School District is considering several small construction projects and possibly the construction of a new elementary school and a new middle school over the next two to three years, any and all of which are dependent upon funding and may or may not materialize.

Submittals in response to this Request for Qualifications will be accepted until 4:30 p.m., April 6, 2000, Pacific Standard Time, at the following address: Superintendent of Schools, Monroe School District No. 103, 200 E. Fremont Street, Monroe, Washington 98272. Submittals are to be submitted in triplicate and clearly marked: RFQ Architectural Services. Questions are to be directed to (360) 794-3000.

Statement of Qualifications shall address the following: (1) Identification of areas of expertise for which the statement is submitted; (2) experience with school construction projects; (3) ability to perform within a specific time frame; and (4) ability to perform within an established budget. Separate brochure(s) may be submitted further describing the firm's capabilities.

The District anticipates that a firm will be selected and appointed as the Architect of Record for these projects by May 15, 2000.

MONROE SCHOOL DISTRICT NO. 103.

BOARD OF DIRECTORS.

Date of publication in the Seattle Daily Journal of Commerce, March 13, 2000.

3/13 (115796)

FIRST PUBLICATION

Auburn School District No. 408

V/E Services

Submittal Date: Jan. 14

AUBURN SCHOOL DISTRICT NO. 408 REQUEST FOR VALUE ENGINEERING SERVICES

Auburn School District is requesting proposals from qualified value engineering consultants to conduct a value engineering study for a new senior high school project.,

Interested firms may obtain a Request for Proposal document by contacting Connie Jacobs, Auburn School District No. 408, 915 Fourth Street Northeast, Auburn, WA 98002, (253) 931-4826.

Proposals will be accepted until 4 p.m., Friday, January 14, 2000.

Dates of publication in the Seattle Daily Journal of Commerce, January 6 and 10, 2000.

1/10 (113506)

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Exhibit 7B – Examples of Calculating State Matchable Amount for Architect/Engineer Fees

Example 1 - Calculation of Fees for New Construction

Givens:
Approved area of construction = 75,000 s.f.
Area cost allowance at time of bid = $100/s.f.

State share = $524,600 x state matching percentage

Approved Area of Construction (s.f.)	Area Cost Allowance ($/s.f.)	A/E Fee Percent (%)	Total Fee ($)
73,400	x 100	x 7.00 =	513,800
1,600	x 100	x 6.75 =	10,800
75,000			524,600

Example 2 - Calculation of Fees for Modernization

Givens:
Approved area of construction = 75,000 s.f.
Area cost allowance at time of bid = $100/sf
80% of area cost allowance = $ 80.00/s.f.
(Maximum area cost allowed; if actual cost is less, then actual cost will be used.)

State share = $629,520 x state matching percentage

Approved Area of Construction (s.f.)	Area Cost Allowance less WSST ($/s.f.)	A/E Fee Percent (%)	Total Fee ($)
73,400	x 80.00	x 7.00 x 1.5	616,560
1,600	x 80.00	x 6.75 x 1.5	12,960
75,000			629,520

Example 3 - New-in-Lieu of Modernization

Givens:
Approved area of construction = 75,000 sq. ft.
Area cost allowance at time of bid = $100 sq. ft.
80% of area cost allowance = $80/sq. ft.
(Maximum area cost allowed; if actual cost is less, then actual cost will be used.)

State share = $421,840 x state matching percentage.

Approved Area of Construction (s.f.)	Area Cost Allowance less WSST ($/s.f.)	A/E Fee Percent (%)	Total Fee ($)
73,400	x 80.00	x 7.00 =	411,040
1,600	x 80.00	x 6.75 =	
			10,800
75,000			
			421,840

Participants

Legend

■ Primary Responsibility for Action

☐ Participation in Action

	Local					State							City/County								Consultants																			
Activity	Citizens Students	SD Board of Directors	SD Superintendent	SD Staff	SD Hazardous Materials Designated Person	State Board of Education	Superintendent of Public Instruction	Public Disclosure Commission	Energy Office	Department of Ecology	Labor and Industries	Electrical Inspector	Planning Officials	Building Officials	Fire Marshal	Public Works	Health Officials	Electrical Inspector	County Auditor	County Treasurer	Program Management	Financial Advisor	Bond Underwriter	Bond Counsel	Legal Counsel	County Prosecutor	Real Estate Broker	Geotechnical Engineer	School Facility Planner	Land Surveyor	Educational Consultant	Construction Manager	Architect Engineer	Value Engineering Team	Constructability Review	Building Commissioning	Contractors	Testing Laboratories	Other	**Remarks**
Consultant Selection (Chapter 7)																																								
29 Establish SD Policy for Consultant Selection		■	▨																																					
30 Public Announcement of Requirements			■																		▨																			
31 Receive Candidates Credentials			▨	▨																	▨																			
32 Evaluate Credentials Short List			■	▨																	▨											■	■	■	■	■				
33 Interview & Rank Candidates			■	▨																	▨																			
34 Negotiate Design Team Agreement			■	▨																	▨											▨	▨	▨	▨	▨				
35 Negotiate Value Engineering Agreement			■	▨																	▨												▨							
36 Negotiate Const. Management Agreement			■	▨																	▨													▨	▨	▨				If Required/Desired
37 Negotiate Constructability Review Agreement			■	▨																	▨											▨								If Required/Desired
38 Negotiate Commissioning Agreement			■	▨																												▨								If Required/Desired
39 Designate SD Project Representative			■	▨																												▨								If Required/Desired
40 Apply for Prelim. Funding Status (Form D-5)			■	▨			▨																																	

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Exhibit 7D

CONSTRUCTION MANAGEMENT GUIDELINES

Construction management is the process of professional management applied to a construction program from concept to completion for the purpose of controlling time, cost, and quality.

When is construction management needed? In general, a construction manager (CM) is recommended for all construction projects exceeding 50,000 square feet and may be justified for smaller complex projects where coordination is difficult, health and safety issues are unusual, or other extenuating conditions exist. The construction management service should provide added value to the project.

When should the construction manager be selected and how? When required by WAC 180-27-102 or the school district, the CM shall be selected per WAC 180-29-068 and hired prior to the start of design. Districts will find it advantageous to hire the CM as soon as project funding is secured. The CM selection should use the state-approved consultant selection process outlined in Chapter 7.

Construction manager qualifications: The construction manager must have appropriate experience in the management of construction projects, including procurement of construction services, contract administration, scheduling, budgets, quality assurance, information management, health and safety, and exposure to school construction projects or equivalent projects. A construction manager's certification by the Construction Management Association of America is desirable, but not a mandatory qualification.

The guideline has been divided into six basic functions for each phase of a project:

1. Project management—The broad subject of project organization and management.

2. Cost management—The managing, controlling, and monitoring of costs during all phases of a project. Effective cost management involves the establishment of a realistic project budget and the application of construction management techniques to ensure the project stays within the budget. The cost management system should be comparable with the school district code of accounts and reflect the school district and CM's need to obtain cost data in a usable format and timely manner.

3. Time management—Managing the schedule and timing for school projects is a major part of construction management. The current trend is modernization, additions, or even new facilities being built on existing sites. The scheduling of the work to interface and avoid conflict with school system and general public activities is critical to project success and maintaining good public relations. The CM's role is to develop, monitor, and implement schedules and prepare periodic reports.

4. Quality management—Quality management is the process of planning, organizing, implementing, monitoring, and documenting a system of policies and procedures that coordinate and direct relevant project resources in a manner that will achieve quality. Quality control is the review, certification, inspection and testing of project components, including persons, systems, materialis, documents, techniques, and workmanship to determine whether or not such components conform to the plans, specifications, applicable standards, and project requirements. Quality assurance is the application of planned and systematic examinations or verifications that demonstrate the quality control procedures are being effectively implemented.

5. Project/contract administration—The CM can provide overall project administration or the scope of administration services may be limited to certain phases of a project. In this role the CM manages or supervises the execution of project procedures and contracts as an independent representative of the school district. The independence of the CM is an important distinction in that the CM applies his/her professional skills for the project solely for the benefit of the school district.

6. Safety management—Focuses on the subject of providing not only a safe working place for the contractors, but also for the school students, faculty, and the general public. The level of services and responsibility of the CM can vary substantially from project to project and should be clearly spelled out in the CM/school district contract. Even without specific contract terms, recent court cases have made the CM and owner responsible for safety. Therefore, it is prudent to have a proactive approach to project safety. The CM and school district must thoroughly review all legal implications, indemnification clauses, and insurance coverages and project risk exposure. It is recommended that a safety coordinator be appointed for the project. This coordinator can be the CM or other knowledgeable individual.

Each of the above functions proceed through the following project phases.

Predesign Phase

Project management—During this phase, the CM together with the school district establishes the project team. Chapter 7 outlines typical project team members. Once selected, the team and the CM should review the planning information developed per Chapter 3. The review is to ensure the plan is complete and that adequate user input has been included in the project planning. The predesign team and CM should function as equals and guide the school district to develop a plan that meets the requirements outlined in this manual.

During this predesign phase the CM should develop the construction management plan for the project. The CM plan should include elements that are addressed as part of the project planning process described in Chapters 3 through 7.

- Project description.
- Milestone schedule.
- Master schedule.

- Quality management approach.
- Reference to project documents.
- Project organization chart and staffing plan.
- Explanation of roles, responsibilities, and authority of team members.
- Qualifications of assigned team members.
- Project budget/work breakdown structure.
- Environmental/archeological considerations.
- Applicable project procedures manual(s).
- Management information system.
- Communications protocol.
- Bid packaging and contracting strategy.
- Site mobilization and utilization.
- Construction.
- Commissioning.
- Warrantees.

In addition to the project plan, a project procedures manual should be developed by the project team and authorized by the CM. The manual should establish levels of team member authority, systems, methods, and procedures to be followed for project implementation. These procedures need to clearly define the processes to be implemented.

The procedures manual should address:

- The budgets and systems required for monitoring and controlling project costs.
- The quality assurance program established by the team and how it is to be implemented.
- The project schedule and how it is to be developed, implemented, and maintained.
- Specific project systems, methods, and procedures, i.e., bidding, payments, change orders, submittals, correspondence, reports, performance records, claim resolution, etc.
- Functional responsibilities and limits of authority.
- Correspondence distribution matrix.
- Safety program.
- Check lists.
- Listing of meetings (i.e., types, frequency).
- Sample forms to be used.
- Coordination matrix.
- Management information system.

A predesign project conference is recommended to communicate the contents of the procedures manual to the team and to establish a commitment and understanding of the project goals, the project approach, and procedures to be used by the school district, the design professionals, others with project involvement, and the CM.

Cost management—During the planning phase a preliminary cost estimate is established. The CM's role is to:

- Investigate factors (i.e., risks) likely to affect construction costs.
- Perform local construction market survey to determine the current cost, availability of labor, materials, equipment, current and future bidding climates, and other factors.
- Obtain cost database for similar projects and escalate to the time and place of the new project.
- Develop or review a preliminary estimate of construction costs and, if requested, the total project cost. Since only schematic design has been performed, the estimate includes the assumptions made and quality level. The CM determines if the preliminary estimate is reasonable to meet school district expectations.
- Evaluate alternatives by preparation of cost estimates and, where applicable, life cycle cost studies, energy studies, and preliminary cash flows.

Time management—As a part of the planning described in Chapter 3, a master schedule should be developed. The master schedule should include all of the major activities leading to a fully operational facility. The activities to be considered are:

- Grants and funding.
- Studies, surveys, and recommendation.
- School board review and approval.
- Predesign.
- Facility design.
- Bid and award.
- Construction.
- Occupancy.

A milestone schedule should be prepared from the master schedule. This schedule indicates the latest acceptable date for each activity to be completed and the party responsible for accomplishing that activity.

The master schedule is updated for progress on a regular basis. As the scope of the project is developed, the CM makes recommendations for revisions to the master schedule. Such revisions may be due to scope changes, funding availability, or changing interface/coordination issues.

Quality management—The CM's role during this phase is establishing a program of quality management that will endure throughout the life of the project. The CM should meet with the school district and others as required to clarify goals and objectives of the quality management program. The quality standards must be included in all contracts, starting with the design professional and carrying through to the construction contracts. The organizational responsibility for quality must be clearly established for each phase of the work. The CM should develop a comprehensive project quality management plan with direct input from the design professional. All the affected parties should approve the plan.

Project/contract administration—Administrative tasks that may be performed by the CM during this early phase of the project include establishing and implementing communication programs between the school district and the project team, review of school district policy implementation, consultant contract preparation, and announcements for retaining additional outside team members. The CM may also be asked to participate in the selection of the various design professionals for the project and participate in design contract reviews.

Safety management—During this phase the project team and CM/safety coordinator need to identify the project safety risks. It may be prudent to add a city/town traffic engineer, insurance risk manager, certified safety professional (CSP) and /or certified industrial hygienist (CIH) to the team when special project conditions are anticipated. The following items should be considered during the predesign phase:

- Responsibilities.
- Work area security.
- Types of construction activities.
- People traffic flow in and around the site.
- Vehicular traffic flow in and around the site.
- Available emergency response.
- Available minor injury treatment facilities.
- Underground storage tanks on site.
- Asbestos involved.
- Underground utilities on site.
- Special high-risk construction methods (i.e., blasting, pile driving, deep trenching, etc.).
- Safety programs.

Design Phase

Project management—During the entire design phase, a process of continual review and consultation must occur among the team members, including the CM, on all issues. The team moves from fundamental and general discussions, initially, to decisions on details as the design progresses. Part of the process includes value engineering reviews, when appropriate, and constructability reviews by the CM. The design professional has total responsibility of design decisions and execution. The role of the CM during the design phase should be to assist the team by carrying out the following activities:

- Design document review. Ensure documents are clear, consistent, and coordinated between parties involved.
- Document distribution. Coordinate and expedite the distribution of information among all team members and agencies.
- Contract agreements. Develop and/or review construction contract agreements for inclusion in the bid documents.
- General and supplementary general conditions. Develop and review general and special conditions to ensure consistency with the project conditions.
- Public relations. Assist the school district in public relations activities, particularly those with respect to developing interest among bidders.
- Project funding. Assist the team with the requirements of Chapter 4.
- Meetings. Conduct periodic meetings to assess design progress, verifying adherence to the CM plan, documenting performance, planning for completion, and taking necessary action to resolve current issues. Typically meetings are held at end of schematic design, design development, and construction documents.
- Consulting activities. Provides input on work packaging and construction during the design phase.

Cost management—Managing costs during design should be proactive. To reduce the need for redesign costs, the CM should participate as a project team member and provide timely cost advice as the design evolves. The CM's cost management role during the design phase includes:

- Establish a uniform cost estimating framework.
- Prepare estimates as design evolves and to the same level of detail available on the drawings, such as schematic design, preliminary design, in-process design (60 to 90 percent), and completion of bid documents.
- Prepare estimates of escalation based on expected local conditions.
- When performed, review the recommendations from the value engineering study with the project team and adjust estimates for those items adopted by the team.
- Monitor and estimate the cost related to design and design development to ensure costs are within the budget.

Time management—The design professional should work with the CM to prepare a realistic schedule for the planning and execution of the design phase. This schedule should be compatible with the master schedule and the milestone schedule. When the design schedule is approved, the CM monitors the design professional's compliance with this schedule. Delays on the critical path must be reported to the school district. The CM should work with the design professional to minimize delays. As design develops, the CM should prepare a pre-bid construction schedule as a reasonable estimate for the proposed work sequence, restraints, dependencies, and expected activity duration based on experience with past similar projects. The CM and school district should establish a reasonable amount of float to accommodate future unknown conditions and changes. The CM and school district jointly determine how float will be managed during the course of the project.

Quality management—The goal is to manage the design process to achieve a set of contract documents developed in accordance with the project schedule that support a successful procurement activity and ultimately the completion of the project in accordance with all the project quality requirements. The major elements of the design phase quality management plan are:

- Design procedures including interdisciplinary coordination and independent reviews.
- Document control.
- Review of design submittals.
- Control of design criteria changes.
- Quality assurance reviews.
- Constructability reviews.
- Value engineering.
- Construction testing requirements.

Project/contract administration—The goal during this phase is to assist in achieving a complete set of documents defining a cost-effective project that can be bid in the current marketplace within the established school district budget, quality, and time restraints.

The CM will administer the design professional contracts by performing the following activities:

- Design progress. Implement a system for flow of information to all affected members on the team related to progress and design issues.
- Design review meetings. Ensure that design review meetings include design review comments and meet mutual understanding between the project team and the design professionals. Written record of comments and resolution of comments should be compiled along with meeting minutes.
- Project cost report. During this phase of the project, track design costs against the budget and issue reports of actual and projected costs.

Safety management—Together with the design team, will review the project drawings and specifications to identify specific potential safety hazards that may exist once the project is begun. The CM/safety coordinator may then provide input for the construction contract documents concerning specific safety devices, equipment, and personal protective equipment that may be needed to mitigate the potential hazards. For example, certain roof designs may require special fall-arresting devices, and tie-off points may need to be included in the structural design.

The contract should make it clear that the contractor performing the construction activity is responsible for his/her own review of the project drawings and specifications to determine potential hazards. In most cases the operation of the construction safety program is assigned to the contractor. The contract documents should be structured to ensure the prime contractor, subcontractors, and lower tier are responsible for safety. The CM/safety coordinator assumes a quality assurance role to ensure all parts of the program are implemented. The contract should require the following information to be submitted for review by the CM:

- Written safety plan.
- Emergency response plan.
- Resume of contractor safety representative.

- Hazardous communication program.
- Specialized programs for specific job site hazard analysis.
- Environmental waste disposal plan.
- Drug and alcohol program.
- Safety training programs.
- Applicable local laws and regulations.

The contract documents should clearly state the contractor is solely responsible for the safety and welfare of his/her employees and for the protection of property and the general public. The contractor shall comply with all federal, state, local and country safety regulations that are applicable to the site. The CM/safety coordinator and school district should have the authority to stop work when safety is compromised. However, this authority should in no way affect the contractor's sole responsibility for performing the work safely, nor shall it impose any obligation on the CM/safety coordinator or school district to ensure the contractor performs the work safely

Bid and Award Phase

Project management—School construction bid and award is a public process regulated by Washington Administrative Code. The process is outlined in Chapter 9 of this manual. The CM's role is as follows during the procurement phase:

- Prepare notices and advertisements.
- Ensure bid packages include all required information and are complete.
- Implement a bidders' interest campaign.
- Track and deliver bid documents to plan centers and contractors.
- Provide information to bidders (all bidders uniformly).
- Issue addenda.
- Assist in bid opening and evaluation.
- Monitor compliance with and signing of construction contracts.
- Arrange for school district-purchased/acquired equipment and materials.
- Ensure permits are in place.
- Ensure insurance and bonds are submitted and meet requirements.
- Conduct the pre-bid meeting, attend the bid opening, and conduct a pre-award conference to ensure the apparent successful bidder fully understands the scope of work.

Cost management—The CM's role continues through the bidding process as follows:

- Estimate in detail all proposed addenda.
- Tabulate all bids and prepare a bid analysis, including evaluation of all alternate bid items and unit prices and compare it to the CM's estimate.
- Provide recommendation based on most responsible bid to the school district for award.

Time management—The CM should clarify for the bidders their scheduling responsibilities. The goal is for the contractor to develop its approach to the construction sequence that will meet the major milestones established by the master schedule. The contractor by its bid is expected to meet the CM's established schedule or take exception and provide an alternate schedule for consideration with the bid. The CM and school district will review any contractor schedule exceptions and will provide a recommendation as a part of the bid evaluation.

Quality management—The goal of this phase is to conduct the procurement process in a manner that will comply with all internal and external quality requirements, secure contractors capable of satisfying those quality requirements, and result in the successful and timely award of a contract for construction.

The major elements of the procurement phase quality management plan are:

- Procurement planning.
- Advertisement and solicitation of bids.
- Instruction to bidders.
- Pre-bid conference.
- Proposal document protocol and bid opening.
- Pre-award conference.
- Contract award.

Project/contract administration—The CM's role is to assist the school district to obtain the most responsible contractor for the specific project. The following activities are recommended:

- Bid package development. Assemble all of the specifications, drawings, and geotechnical and other pertinent test information for the project and ensure or develop a clear scope of work for bidding (for projects exceeding $50,000). See Chapter 9 for contracting requirements.
- Bidders interest campaign. The CM should conduct a telephone and/or written campaign to generate maximum interest among bidders. Feedback from the campaign can be used to evaluate the bidding climate and help establish the timing for bidding.
- Notices and advertisements. The CM should assist the design professional and the school district in drafting notices and advertisements for bid.
- Delivery of bid documents, including addenda. In coordination with the design professional, the CM should administer the distribution of the bid documents. The CM shall ensure that the bid documents are issued to the appropriate plan centers and maintain records of who requested and received the bid documents.
- Information to bidders. The CM should establish the procedures and ensure that bidders' questions are answered and information is uniformly made available to all bidders.
- Pre-bid conferences and meetings: The CM should be responsible for conducting the pre-bid conference, including ensuring that the appropriate design professional and contracting officers are available to address questions. The pre-bid conference should address scope, schedule, quality, site access, time restraints, administrative requirements, or other special project conditions.

- Bid evaluation. The CM may assist in evaluating the bids for completeness, responsiveness, and pricing. The CM should ensure that the design professional performs technical reviews when appropriate. The CM needs to resolve bidder exceptions and clarifications in a manner suitable to the school district. The CM should prepare a comparison of bidders and a written recommendation for award.
- Pre-award conference. The CM should conduct a pre-award conference with the low bidder to ensure the bidder fully understands the scope of work and conditions related to the award of the contract.
- Construction contracts. When requested, the CM will participate in the final negotiations and contract award.
- Notice to proceed. When the CM has verified that all contract preconditions such as insurance, bonds, and permits have been met by the contractor, the CM will issue the construction notice to proceed.

Safety management—The CM and others perform the comprehensive review of the contract safety documents as needed during this phase. If the CM has staff on site, the CM should have its own safety program or adopt the contractor's program. It is recommended that the contractor's program be considered the minimum requirements for any person entering the construction area. The safety program shall be reviewed at the preconstruction conference. At this time information should be provided concerning emergency response programs and procedures, safety meeting times and schedules, training requirements, site safety surveys, accident investigations, and reporting procedures. The contractor needs to transmit all safety-related materials to all subcontractors and any lower tier.

Construction Phase

Project management—The CM's role in the construction phase is to expedite and improve the efficiency of the construction process through professional planning and execution of project activities, all focused upon fulfilling the school district's scope, cost, quality and time requirements. The CM's overall project management responsibilities include:

- On-site facilities. Ensure office space, storage, environmental controls, work areas, parking, general access, and utilities are provided for on-site organizations.
- Coordination. Provide coordination and leadership of individual professionals and contractors. Ensure on-site work activities are coordinated with school district functions.
- Safety. Ensure contractor and all site personnel implement a safety program. Ensure this program correctly interfaces with the school district's operations and the general public.
- Meetings. Conduct regularly scheduled meetings to address coordination, schedule, cost, and quality of work in progress. Conduct special meetings with team members, as required, to discuss and resolve project issues.
- Time management. Monitor the project master and construction schedules and keep the school district informed of progress.
- Budget and cost monitoring. Track and take appropriate action to stay within the budget.

- Payment requests. Review and approve requests for payment.
- Change orders. Review, recommend, and, within the established level of authority, approve change orders.
- Claims management. Implement claims avoidance program and, when required, perform merit evaluation, entitlement evaluation, negotiations, and prompt settlement of claims.
- Quality management. Perform a quality assurance function during construction.
- Owner-purchased materials and equipment. Identify long-lead items for prepurchase. The CM coordinates scheduling, on-site delivery and storage, and installation and testing.
- Record drawings. Ensure records are maintained by the contractor, review for completeness and transmit final as-builts to the school district.
- Record keeping. Establish a systematic method for paperwork, usually a management information system.
- Management reporting. Keep the school district and team members informed of progress and issues.

Cost management—The CM must implement the cost management procedures and monitor costs through the completion of construction. The CM's role includes:

- Jointly with the contractor, establish a schedule of values for payments.
- Establish and implement the change order control system.
- Perform independent estimates for change orders to determine reasonableness.
- As required, perform trade-off studies on materials, systems, equipment, work practices, and accessories.

Establish a detailed audit record trail for subsequent audits, claims, or investigations.

Time management—The CM ensures the approved contractor's construction schedule supports the master schedule and milestone dates. The CM monitors the contractor and master schedule:

- At least monthly, review and assess the performance of the contractor and other team members.
- Establish a systematic procedure for gathering and analyzing each project participant's progress.
- Establish a regular schedule of project meetings and require that each team member come to the update meetings with all the necessary schedule status information.

- Prepare a narrative report on the status of the overall project, highlighting progress to date and those areas or activities having problems and requiring management attention. Particular attention is paid to the critical path and near-critical path activities.
- Clearly document and maintain time extension requests and time extensions granted, pending, and denied.
- Prepare independent time impact analysis to substantiate time changes for critical path activities.
- On occasion it may be necessary to recommend that lost time or time delays be recovered. Together with the contractors will develop a recover schedule.

- In the event of project claims, prepare reports and supporting information to resolve the dispute or defend against the claim. May make specific recommendations and work with the school district and legal staff to settle the claim.

Quality management—The goal of this phase is to complete construction in accordance with the requirements of the contract documents, with documentation to verify that such compliance was achieved. The major elements of the construction phase quality management plan are:

- Preconstruction conference.
- Construction planning and scheduling.
- Inspection and testing.
- Reports and record keeping.
- Control of changes in the work.
- Document control and distribution.
- Nonconforming and deficient work.
- Final review, documentation, and punch list work completion.
- Beneficial occupancy.
- Substantial completion.
- Final acceptance.

Project/contract administration—The goal is to manage and maintain documentary evidence of proper contract implementation, all focused upon fulfilling the scope, cost quality, and time requirements for the project.

- Preconstruction orientation conference. The CM should call a meeting for the benefit of the successful contractor to review administrative and other reporting procedures required as well as introducing the design team and other team members and explaining their project role. This conference is a good place to establish a partnering type atmosphere for the project. (As an alternate for large projects, a formal partnering session is recommended.)
- On-site communication procedures. The CM must prepare and issue communication procedures to ensure effective team functioning during construction:

    1. Project directory.
    2. Communications flow chart.
    3. Contractor correspondence files
    4. Chain of responsibility and authority.
    5. Submittal flow chart and logs.
    6. Field orders.
    7. Coordination meetings.
    8. Quality assurance/quality control.
    9. Substitutes.
    10. Directives and reports.
    11. Cost and schedule performance data.

- Project site meetings. To manage the construction work effectively, the CM should organize, conduct, and record regularly scheduled meetings involving the CM, the contractor's supervisory personnel, the design professional, and appropriate school district personnel. The purpose of the meetings is to:

    1. Discuss short-term and long-range plans for contractors.
    2. Discuss and resolve scheduling/coordination problems.
    3. Obtain answers and clarifications to any questions.
    4. Review and resolve monthly payment requests.
    5. Coordinate long-lead procurement.
    6. Resolve any other issues brought to the project team.

- Contract documentation procedures. The CM should establish systems for receiving, handling, and distributing the following:

    1. Contract documents.
    2. Contractor requests for information.
    3. School district directives.
    4. Submittals—receipt and approvals.
    5. Changed conditions.
    6. Claims.
    7. Meeting minutes.
    8. Project reports.
    9. Daily field reports.
    10. Payment requests and payment reports.
    11. Photographs.
    12. Cash flow projections.
    13. Cost summary reports.
    14. Schedule variance reports.
    15. Special record keeping.
    16. As-built drawings

Safety management—During construction the contractor is responsible for implementing the safety program at the site. Modifications should be promptly implemented to accommodate changed conditions at the site and when weaknesses are identified.

The CM monitors the contractor's daily construction activities and notifies the contractor in writing of any deficiencies observed. The CM then follows up with the contractor to determine if corrective measures have been taken. The CM's actions in this regard are not intended to relieve the contractor of his/her responsibility on the job site.

Should the contractor fail to correct an unsafe condition, the CM should immediately notify the school district of the contractor's failure to correct the unsafe condition. The school district then notifies the contractor through the CM that the unsafe condition must be corrected or the work in question will be stopped until the condition is corrected to the satisfaction of the school district. Extension of time or additional compensation is not granted the contractor as a result of any stop work order so issued.

Safety coordination should be discussed weekly with the contractor as a part of project meetings. This is an opportunity for all parties to ensure that planned construction activities will not jeopardize the safety of students, faculty, or the general public. Minutes of the meetings should be kept. Safety surveys should be performed in order to ensure that agreements/commitments are implemented.

The CM participates as a member of the job site safety committee. Other members on the committee can be comprised of the contractor's management, safety, and labor representatives. The committee should meet at least once per month to review safety issues and contractor progress on the job site.

The CM will conduct safety surveys as a member of the safety committee or other safety job site reviews. The surveys should evaluate compliance with:

- Orientation training.
- Hazard communication training.
- Accident investigations.
- Job site inspection.
- Emergency procedures.
- Disciplinary action.
- Safety meetings.
- Overall administration of the safety program.

The CM should forward survey reports to the school district and contractor for their information. The purpose of the survey is to identify program weakness and remind the contractor of the obligation to comply with safety programs, including regulations, laws, and ordinances referenced therein.

Commissioning Phase

Project management—The CM's role during this last phase of the project is to manage an effective commissioning program, ensure punch work items are completed, schedule and participate in the occupancy permit process, and close out of all project contracts. Details are in later sections.

Cost management—The CM summarizes total project cost in a final report, listing all change orders and identifying any unresolved issues that may have a cost impact. The final report determines the project's actual per square foot cost.

Project/contract administration—To ensure satisfactory facility use/occupancy, the CM should perform the following activities related to administration:

- Maintenance manuals and operating procedures are obtained, indexed, and organized for future maintenance.
- Spare parts and warranties are reviewed for contract compliance and safely archived.
- Final permits are obtained and meet agency requirements.
- Move-in plan established.
- Start-up of major equipment and confirmation of performance is verified.

- Punch list items corrected.
- Final payment conditions met.
- Contract close out.
- Close-out reports prepared.
- Contractor/subcontractor evaluation completed and submitted to OSPI.

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Section 801 – The Design Process

The design process incorporates all prior planning, educational specifications, site studies, codes and regulations, and financial parameters into written and graphic documents that form the basis for constructing the school. This process includes intensive participation by many diverse parties with specialized skills and professions.

Normally, the design process consists of three basic phases:

1. Schematic design.
2. Design development.
3. Construction documents.

Additionally, facility design includes an assessment of the following:

- Accessibility.
- Codes and ordinances.
- Energy conservation report.
- Environmental health requirements.
- Value engineering.
- Constructability review.
- Commissioning.

Section 802 – Schematic Design

The schematic design phase includes:

1. Written general description of the project indicating how the design responds to the educational specifications and other programmatic requirements.
2. Zoning and building code analyses.
3. Conceptual site and building plans.
4. Preliminary building sections.
5. Preliminary selection of building systems and materials.
6. Approximate dimensions and areas of major building components.
7. Perspective sketches and study models as necessary to explain the design concept.
8. Master time schedule for all project activities.
9. Preliminary construction cost estimate.

During the schematic design phase, the architect/engineer translates the educational specifications into graphic representation. The architect/engineer is concerned initially with conceptual organization, functional relationships, and circulation patterns in response to the educational program. The site is introduced into the planning process and the physical concepts of land use are analyzed.

Each architect/engineer employs a unique process in developing a schematic design. Early dialogue with civil, structural, mechanical and electrical engineers together with other appropriate specialized consultants is necessary to determine concept feasibility and potential systems applications as related to the educational specifications and potential advantages of early bidding for portions of the work. Applicable codes, regulations, and laws are reviewed and their requirements applied to the schematic design.

The architect/engineer synthesizes all program (educational specifications), site design, and engineering factors into one or more schematic designs. The schematic designs along with an outline of construction specifications are presented to the district for review. Each design should be analyzed and discussed with regard to functional validity, conceptual organization, environmental/aesthetic qualities, and related cost estimates.

The schematic design cost estimate usually includes a preliminary area analysis and construction cost estimate with contingencies for design and/or construction changes and inflation. Construction cost estimates at the schematic design phase usually follow the UniFormat classification system. (See glossary and Exhibit 8A.) The estimate may also include a preliminary analysis of the district's project budget with recommendations for changes if the schematic design cost exceeds the district's capital budget.

After a review of the alternative schematic designs by the district, one schematic design or a combination of several will be singled out for further development. In the case that none of the designs entirely satisfies the planning requisites, either the architect/engineer will try something new or the project's scope will be reevaluated. For example, if the requirements of the educational specifications result in a facility more expensive than the district's initial capital budget, then some aspect of the design will need to be reviewed and adjusted—quantity, quality, or budget. It is not uncommon to go through this iteration process several times before a workable solution is reached that is satisfactory to everyone involved. Changes and variations are more easily accommodated during the schematic design phase.

When the schematic design is acceptable to members of the planning team, it is presented to the school board for review and approval. The board's approval, together with authorization to proceed into the design development phase, is transmitted to the architect/engineer in writing. Written approvals and authorizations are for the protection of all parties involved and reduce the potential for misunderstandings in later phases of the work.

Also, it is very important to immediately solicit participation of members of code enforcing agencies such as planning and zoning officials, building officials, fire marshals, electrical and health officials through a predevelopment conference. Local officials should be asked to identify any special project requirements. This participation enhances their understanding of the district's needs and facilitates final review and approval of the completed construction documents.

Section 803 – Design Development

After the schematic design is approved, the architect/engineer proceeds to the design development phase which includes:

1. Site plan, building plans, sections, and elevations developed in sufficient detail to establish the final scope, relationships, forms, sizes, and appearance of the project.
2. Wall sections, typical construction details, and finish, door, and window schedules showing how the building is to be constructed.
3. Outline specifications describing final material selections, architectural, structural, mechanical, and electrical systems.
4. Area analysis of the project.
5. Sketches, study models, product and material literature, and samples as necessary to explain the project.
6. Updated project schedule.
7. Detailed construction cost estimate.

Plans are studied at larger scale, and three-dimensional relationships are developed. Elevations, sections, perspectives, and models are prepared to illustrate various visual aspects. The initial selections of materials and building systems are made. At the same time, the engineering systems are developed and coordinated among the architect and engineers.

1. The structural engineer devises an appropriate structural system and establishes the location and general sizes of all structural members based on soil conditions, code requirements, and design criteria.
2. The mechanical engineer designs the heating, ventilating, air-conditioning, and piping systems to code requirements and design criteria.
3. The electrical engineer develops the power, illumination, communication, and alarm systems to be used in the facility.
4. The civil engineer develops site grading, paving plans, roadways, connections to utilities, and/or on-site sewage disposal and drainage.
5. Other technical consultants, hired for their expertise on certain specific aspects of the program, proceed with their design responsibilities under the direction of the architect/engineer.

When the design development documents are finalized, the architect/engineer prepares a more detailed cost estimate. With the project now developed in considerable detail, the value engineering and energy conservation studies are conducted, and the final design development documents are submitted to the school board and to appropriate agencies for review and approval. The board's approval of the design development documents and authorization to proceed with construction documents are transmitted to the architect/engineer in writing.

A more detailed cost estimate of construction may be prepared during design development. Such an estimate would probably involve a quantity take-off of the amounts of the separate materials multiplied by the unit costs of the labor, equipment, and materials. Usually such estimates follow the Construction

Specifications Institute (CSI) MasterFormat to parallel the architect/engineer's specifications and contractor's bids. See Exhibit 8A for the CSI formats.

Section 804 – Construction Documents

For purposes of bidding and construction, the architect/engineer precisely describes his/her design to contractors, subcontractors, material and equipment suppliers, and building authorities having jurisdiction over the project in the construction documents. These documents also include district contract requirements.

The construction documents, which form the contract, are composed of two integrated components—the project manual and drawing. (See Exhibit 8B.)

1. **The Project Manual**
    a. **Bidding requirements**—contractor qualifications, public bid law procedures, instruction and invitation to bid, bid form, and bid bond.
    b. **Contract forms** define the contractual relationship of the project between owner and contractor, listing all pertinent project documents and establishing specific requirements such as schedule, late penalties, interest rates, etc. Contract forms usually include the agreement of contract itself, performance and payment bond forms, and certificates as may be needed.
    c. **Contract conditions** provide additional detailed requirements.
        - General conditions define the specific detail of the contractual relationship, including all administrative roles, requirements, and procedures that have been established traditionally on typical projects. General conditions are often preprinted documents such as AIA document A201.
        - Supplementary conditions amend the general conditions to suit the individual project or party requirements as may be necessary. This part of the project manual, in particular, is structured to cover public contract requirements, insurance coverage, etc.
    d. **Specifications** set standards of quality for products, materials and workmanship, as well as listing specific make, model, and manufacturer of materials, products, components, or assemblies. Division 1 of the specifications contains project administration procedures and detailed contract provisions such as schedule, alternate work, site access, work not in contract performed by others, etc.

2. **The Drawings**
   Construction drawings show, in graphic and quantitative form, the extent, configuration, location, relationships, and dimensions of work to be done.

3. **Addenda**
   Addenda are issued for construction modifications or clarifications that occur during the bidding phase but prior to acceptance of the construction contract.

These modifications and their potential impact are then incorporated into the bid and construction contract.

4. **Contract Modifications**
   Construction contract modifications that occur after the acceptance of the contract is known as change orders. Any modifications and associated changes in the cost or time schedule agreed to by all parties becomes an integral part of the construction contract from that date forward.

Although the preceding format is one industry-accepted format for integrating the construction contract, project specifications, and drawing documents (refer to Exhibit 8B), there are other forms of contracts which have gained prominence in recent years, depending on the type of project, the method of contracting, and the role and responsibilities of the contract parties. However, not all contract versions are known or accepted universally. Some contracts, depending on circumstance, may require extensive modification to be mutually acceptable. Therefore, it is necessary to consider carefully the format and terms.

As with any contract, it is advisable to have legal counsel review all contract terms and language to clearly reflect contract requirements and expectations.

The construction bidding documents shall be submitted on microfilm from Dodge SCAN to OSPI for their review of state assistance project requirements.

Section 805 – Regulatory Requirements

The design process is affected by codes and ordinances in such areas as health, safety, accessibility, and the environment. The codes can be a product of local, state, or federal action.

As the project moves through the design process, the architect/engineer together with the district will determine how the project will respond to these requirements.

The final construction documents shall comply with the latest versions of these codes and ordinances before projects are approved and building permits issued. In addition, the documents shall be submitted to the following agencies:

1. Fire marshal or fire chief having jurisdiction.
2. Department of Labor and Industries (Electrical section) or agency having jurisdiction for electrical approval.
3. Health agency having jurisdiction.
4. Department of Ecology or local agency having jurisdiction for environmental approvals.
5. Building official having jurisdiction.

Letters of approval from these agencies shall be forwarded to OSPI as part of the Form D-7 submittal.

The following is a list of the applicable state building codes, environmental health regulations, and accessibility standards.

1. Chapters 19.27, 19.27A, and 43.20 RCW establish the minimum school building and life safety code criteria known as the State Building Code. This code includes:
   - Uniform Building Code and Standards.
   - Uniform Mechanical Code and Uniform Plumbing Code.
   - Uniform Fire Code.
   - Accessibility standards as adopted in WAC 51-40-1100 Chapter 11—Accessibility.
   - The Washington State Energy Code, chapter 51-11 WAC.
2. Additional state codes include:
   - Environmental Health—Primary and Secondary School Rules and Regulations, chapter 246-366 WAC.
   - National Electrical Code as adopted by the State of Washington Department of Labor and Industries, WAC 296-46-140.

The State Building Code is subject to amendment, supplementary inclusions, administration, and enforcement by the county, city, or township having jurisdiction for the area in which a project is located. However, amendments to the State Building Code made by local jurisdictions cannot be less restrictive. Local governmental agencies should be contacted to determine which codes have been adopted (codes are reviewed every three years) and to obtain information on local amendments and compliance requirements.

School districts must comply with state accessibility requirements that meet federal guidelines. Districts must ensure that their buildings, programs, services, and classes are accessible by persons with disabilities. Therefore, districts must comply with the following requirements:

1. All new facilities and post-1993 remodeled facilities (or portions of buildings that were remodeled under the ADA requirement) must be physically accessible in accordance with WAC 51-40-1100 Chapter 11.
2. All pre-1993 nonremodeled facilities must be adapted to ensure accessibility where physically possible and provide for administrative solutions to accessibility issues where structural revisions are necessary. This includes auxiliary aids and services as long as these provisions result in neither an undue burden nor a fundamental alteration of the program. "Undue burden" is defined by ADA as significantly difficult or expensive (work which must be accomplished by remodel construction).

Section 806 – Life Cycle Cost Analysis

School districts and design professionals often focus their attention on the initial cost of construction. However, there is a growing recognition of the importance of the long-term operation, maintenance, repair, replacement, and alteration costs incurred over the service life of a building.

State law requires life cycle cost analysis in the design of all major public facilities. The intent is to aid architects/engineers and districts in making facility design decisions where both the initial and the continuing costs are carefully considered.

For school construction projects, the life cycle cost analysis requirements are satisfied via the energy conservation report (WAC 180-27-075) and the value engineering study (WAC 180-27-080).

Energy Conservation Report

School districts are responsible for ensuring that energy conservation and renewable energy systems are employed in the design and renovation of major facilities. The requirement applies to the design of any facility having more than 25,000 square feet of usable space and renovations that exceed 50 percent of the replacement value of a major facility. For projects 5,000 to 25,000 square feet, only the public facility energy characteristics (PFEC) form needs to be submitted. For modernization projects over 25,000 square feet but less than 50 percent replacement value, only a PFEC form is required (a state-matched modernization project must be at least 40 percent of replacement value).

The energy conservation report must be prepared by a licensed architect or professional engineer who has experience with computer energy simulation models and public building design.

The required report shall be based on guidelines prepared by the Washington State Department of General Administration. The guidelines define a procedure and method for performing life cycle cost analysis and provides a standard reporting format. The method of analysis specifically considers the life cycle costs for energy systems such as heating, cooling, lighting, building envelope, and domestic hot water. Just after the project is built, the engineer completes a verification checklist describing all the energy systems.

The completed report evaluates the systems proposed by the architect/engineer and recommends alternatives that make the most economic sense. Final approval of the report is the exclusive responsibility of the district. Upon completion of the building, the engineer completes a verification checklist describing all of the energy systems.

Section 807 – Value Engineering Study

Districts are responsible for ensuring that a value engineering study is completed during the design process. The study is optional for any project between 15,000 and 50,000 square feet. The study is required for any project over 50,000 square feet. The square footage eligible for state matching funds is not a factor in determining if the study is required.

Value engineering is an organized approach to optimize both cost and performance in a facility or to identify items that add cost without contributing to the required function of the facility. In evaluating the quality, use, life, appearance, and required features of a facility, the value engineering team attempts to achieve value without reducing quality below required levels while maximizing function, cost, and value in design.

The district shall contract for the value engineering study independent from the architect/engineer. The study shall consist of a 40-hour workshop involving a five-person multidisciplinary team led by an individual qualified by the Society of American Value Engineers. Value engineering realizes its greatest savings potential during the schematic and design development phases of the project when the major cost and value decisions are being made. Value engineering should occur no later than the design development phase.

One copy of the value engineering study, as approved by the district's board of directors, shall be filed with the Form D-7 submittal. Board action should include a brief statement explaining why each alternate not accepted was rejected. (Refer to Chapter 2, Section 216.)

The value engineering process is organized in phases: information gathering, brainstorming, analysis, development, and presentation. Through this process alternatives are evaluated for potential savings or added value with little or no cost. The best alternatives are developed along with cost estimates and presented to the district and the architect/engineer. The accepted alternatives are incorporated into the project design and construction documents.

Section 808 – Project Risk Management

Project risk management is defined as the process whereby risks to the district are identified, assessed, and mitigated. Project risk management should be assigned before the construction documents are completed. Risks may be mitigated by purchasing appropriate insurance, by allocating risk to the appropriate party or parties, or by devising a plan of action to deal with potential risks. Each form of mitigation is described below.

Insuring Against Risk

The school board needs to evaluate its liability arising from construction of the project, determine the potential for significant losses, and insure against them where coverage is advised by the school board's attorney and an insurance broker experienced in writing construction coverage.

Selection of the type of insurance to be specified in the construction documents should be based on requirements of each particular project. Some of the types of insurance available are:

- Comprehensive general liability insurance.
- Automobile liability insurance.
- Owner's protective liability insurance.
- Builder's risk or all-risk insurance.
- Workers' compensation insurance.
- Property and fire insurance (often maintained by the district at lower cost than if required from the contractor).

The limits of liability to be specified deserve careful consideration. There is little or no relationship between the degree of risk, which should establish the limits of liability, and the size or monetary value of a project. Often, in multiple contract projects, one umbrella or all-risk (builder's risk) policy with high limits of liability purchased by the owner may be more economical than several of the same policies at lower limits furnished by each contractor.

When the district specifies that insurance is to be provided by the contractor, a cancellation clause should be required for all policies. A cancellation clause is a statement on the certificate of insurance that obligates the insurance company to give written notice to the district, often ten to 15 days (preferably 30 days) prior to canceling any policies.

Allocating Risk

This form of mitigation allocates risk by contract to the party or parties with the most control or in the best position to protect against risk.

For example, a standard contract assigns the initiation, maintenance, and supervision of all safety precautions and programs to the project contractor. This assignment is appropriate because the contractor has the most control over the job site on a daily basis and is in the best position to protect against the risks associated with the construction operation. When combined with adequate requirements for insurance, this forms a basis of risk mitigation for one part of project liability.

Devising a Plan of Action

For some construction projects it may not be possible or economically feasible for the district to mitigate all the risks by insurance or allocation. When the district recognizes that risks still remain, they should consider devising a plan of action to minimize risk.

One such risk unique to construction projects is the situation of unknown subsurface conditions in a project area. The need to excavate and provide adequate bearing for building foundations and other structures subjects the project to risks that can have enormous cost and time impacts. A plan of action anticipates that a certain amount of unsuitable material may need to be removed and replaced and requests a unit price for earthwork removal as part of the bid. That portion of the risk may be assigned to the contractor by taking advantage of the competitive bidding environment. The district retains the risk of further costs for the removal of additional amounts of material not anticipated in the plan of action. In situations such as this, the district should obtain as much reliable information as possible (such as subsurface geotechnical exploration and analysis) and consider carefully the risks and their possible impacts.

Exhibit 8A – Cost Estimating Formats

UniFormat Classification System			
A	Substructure	E	Equipment and Furnishings
A10	Foundations	E10	Equipment
A20	Basement Construction	E20	Furnishings
B	Shell	F	Other Construction
B10	Superstructure	F10	Special Construction
B20	Exterior Closure	F20	Selective Demolition
B30	Roofing		
		G	Site Work
C	Interiors	G10	Site Preparation
C10	Interior Construction	G20	Site Improvements
C20	Stairways	G30	Site Plumbing Utilities
C30	Interior Finishes	G40	Site Heating, Ventilating, and Air Conditioning Utilities
		G50	Site Electrical Utilities
D	Services	G60	Other Site Work
D10	Conveying Systems (Elevators)		
D20	Plumbing	Z	General
D30	Heating, Ventilating, and Air Conditioning	Z10	General Requirements
D40	Fire Protection	Z20	Bidding, Contract Forms, and Conditions
D50	Electrical	Z90	Cost Estimates

MasterFormat Classification System			
Division 0	Bidding Documents and Conditions of the Contract	Division 9	Finishes
Division 1	General Requirements	Division 10	Specialties
Division 2	Site Work	Division 11	Equipment
Division 3	Concrete	Division 12	Furnishings
Division 4	Masonry	Division 13	Special Construction
Division 5	Metals	Division 14	Conveying Systems
Division 6	Woods and Plastics	Division 15	Mechanical
Division 7	Thermal and Moisture Protection	Division 16	Electrical
Division 8	Doors and Windows		

Participants

Legend

■ Primary Responsibility for Action

▨ Participation in Action

Activity	Local					State							City/County								Consultants																			Remarks
	Citizens/Students	SD Board of Directors	SD Superintendent	SD Staff	SD Hazardous Materials Designated Person	State Board of Education	Superintendent of Public Instruction	Public Disclosure Commission	Energy Office	Department of Ecology	Labor and Industries	Electrical Inspector	Planning Officials	Building Officials	Fire Marshal	Public Works	Health Officials	Electrical Inspector	County Auditor	County Treasurer	Program Management	Financial Advisor	Bond Underwriter	Bond Counsel	Legal Counsel	County Prosecutor	Real Estate Broker	Geotechnical Engineer	School Facility Planner	Land Surveyor	Educational Consultant	Construction Manager	Architect Engineer	Value Engineering Team	Constructability Review	Building Commissioning	Contractors	Testing Laboratories	Other	
Design (Chapter 8)																																								
41 Grant for Prelim. Funding Status (Form D-6)							■																																	
42 Schematic Design Preparation				▨									▨	▨	▨	▨	▨				▨											▨	■							
43 Prepare Energy Conservation Report																																▨	■							If Required
44 Obtain Energy Office Approval				▨					■												▨											▨	▨							
45 Evaluate Schematic Designs			■	▨																	▨											▨	▨							
46 School Board Approval of Schematic Designs		■	▨																		▨											▨	▨							
47 Design Development				▨																	▨											▨	■							
48 Form Value Engineering Team			▨	▨																	▨													■	■	■				If Required
49 Conduct Value Engineering Study			■	▨			▨														■											■	■	■	■	■				If Required
50 Review Value Engineering Alternatives from Study		■	▨																		■											■	■	■	■	■				
51 School Board Approval of Design Development		■	▨																		▨											▨	▨							
52 Determine Environmental Lead Agency			■	▨									▨								▨																			If Required
53 Prepare Environmental Checklist				▨									▨								▨											▨	■							If Required
54 Determination of Non-Significance			■	▨						▨			▨																											
55 Prepare Environmental Impact Statement				▨									▨								▨											▨	■							If Desired
56 Process Environmental Impact Statement				▨						▨			▨																											If Desired
57 Prepare Construction Documents				▨																												▨	■							
58 Prepare Constructability Review Documents				▨																												▨	▨	▨	▨	▨				
59 Review Construction Documents		▨	■	▨								▨	▨	▨	▨	▨	▨	▨			▨											▨	▨							
60 School Board Approval of Construction Doc		■	▨																		▨											▨	▨							
61 Application for Secured Funding (Form D-7)			■	▨			▨														▨											▨	▨							
62 Authority to Receive Bids (Form D-8)							■																																	

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Chapter 9

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Section 901 – Bidding Public Works

When the cost of any public building or improvement equals or exceeds the sum of $50,000, the district shall prepare plans and specifications for such work and give public notification of the intention to receive bids for the work.

Upon the completion and approval of the final construction documents (drawings and project manuals) with the bidding requirements, a school project is ready to be released to contractors to obtain proposals or bids.

When general contractors receive the final construction documents, they review the scope of the project and request bids from various vendors and subcontractors for specified materials and equipment. The vendors and subcontractors will be alerted to the need for their services and/or products by the advertisement for bids and by the placement of the construction documents in plan centers.

It is in the best interest of the district to provide widespread public notice of the work to be performed in order to receive as many competitive bids from general contractors, subcontractors, and vendors as possible.

Section 902 – Bidding and Contracting

The following bidding and contracting procedures are permissible and may be used in the selection of bidders leading to the award of construction contracts. The district should fully discuss the type of contract with their architect/engineer and legal counsel prior to document preparation.

1. **Single Prime Contract**
   The most common form of construction contracting involves competitive bidding for a single construction contract. In this process, the bidding documents are prepared by the architect/engineer for the district and made available to a number of qualified bidders. Each bidder determines the price for which the bidder is willing to construct the project, including profit, and submits a bid to the district. The selected contractor and the district enter into an agreement formalizing their relationship. Typically the contractor will have a portion, perhaps a majority, of the work done by subcontractors.

2. **Early Bidding and Prepurchase**
   Another form of construction contracting is to early bid or prepurchase materials, equipment, or portions of the work prior to completion of full construction documents. Examples of early bidding or prepurchasing materials or equipment are long-lead items or quantity contracting for several projects. Examples of early bidding on portions of the work include site development work such as clearing, excavation, structural fills, and utilities that will benefit from favorable weather or timing of work relative to completion of documents or permits. Early bidding and prepurchasing should be used

with caution due to the owner's increased responsibility for the timeliness and quality of the items if those items delay or damage a separate contractor.

OSPI approval is required prior to opening any early bids unless bids are assigned to a general construction bid at a later date.

Purchases of building components through KCDA may be considered for state assistance, either by assigning costs to the general contractor or as a separate contract subject to standard OSPI requirements.

Section 903 – Bonds

The bonds shall be in an amount equal to a minimum of 100 percent of the contract sum, including any change orders authorized by the district, plus an amount equal to the Washington State sales tax and any local sales or use taxes applicable to the contract. The types of bonds required are:

1. **Bid Bonds**
   On any school project receiving state funding assistance, each bidder is required to submit a bid guarantee in the form of a certified check, cashier's check, or a bid bond in the amount of 5 percent of the amount bid. The bid guarantee is subject to forfeiture if the bidder fails to enter into a contract with the school district for construction of the project when such contract is properly prepared and offered to the bidder. Bid bonds shall be written by a firm licensed to do business in the state of Washington and shall be accompanied by a power of attorney for the signatory.

2. **Performance and Payment Bonds**
   Whenever any person or corporation contracts to do any work for a district, the district shall require such person or corporation to make, execute, and deliver to the district a performance bond to ensure that the contractor performs all the provisions of such contract. Payment bonds ensure that all laborers, mechanics, subcontractors and material suppliers, and all persons who supply such persons or corporation, or subcontractors with provisions and supplies for the carrying on of such work are paid.

3. **Retainage Bonds or Retainage in Lieu of Bonds**
   A district must either provide for the reservation of 5 percent of all moneys earned by a contractor or accept a bond from a bonding company for any portion of the retainage in a form acceptable to both OSPI and the district.

   Retained moneys may, at the contractor's written option, be retained in a fund by the district or placed in escrow with an approved bank or trust company for investment in authorized bonds or securities with interest on such investments accruing to the contractor. All retained funds shall be held until 45 days following final acceptance of the work of the contract.

Section 904 – Regulatory Compliance

School districts are required by law to comply or ensure compliance with the following regulations in the administration of the construction contract.

Chapter 18.27 RCW—cities, towns, or counties are prohibited from issuing construction building permits without receiving proof of contractor's registration.
Chapter 39.08 RCW—relates to contractor's performance and payment bond.
Chapter 39.12 RCW—refers to payment of standard prevailing wages for the specific type of construction as determined by the Washington State Department of Labor and Industries in the city or county where the work is being performed.
Chapter 49.28 RCW—refers to the eight-hour day, payment for overtime, cancellation of contract for violations, and penalties for violations.
Chapter 49.60 RCW—is the state law among other laws and regulations that prohibits discrimination in all phases of employment.
Chapter 70.92 RCW—refers to the provisions for the aged and disabled.

Section 905 – Advertising for Bids

The district shall advertise for bids on any school building project receiving state matching funds.

The advertisement shall include:

- A brief description of the project.
- The deadline and place for receiving the bids.
- Where the bidding documents may be examined or obtained.
- The deposit required for a set of bid documents.
- Notification that all bidders must submit a list of subcontractors whose work will exceed 10 percent of the project.
- Any conditions that are attached to preparing, submitting, and opening the bids.

The bid advertisement shall be published once each week for two consecutive weeks in a trade journal of general circulation, such as the *Daily Journal of Commerce*, and a like number of times in a publication circulated throughout the local area. Certified copies of these advertisements shall be submitted to OSPI with the Form D-9.

The district should obtain copies of the advertisement in the form that it is published, along with certification by the publisher of its publication dates. Submit this information to OSPI with Form D-9.

The selection of the date when bids are to be received should take into account other projects that are being bid, both in the immediate locality and in nearby areas on the same date. Occasionally, the firm intending to bid on a school project will request an extension of the due date. Such a request should be carefully considered and granted if possible, for it usually results from a contractor's inability to obtain quotations and sufficient time to estimate those portions of the work to be done by the contractor.

Many localities have a builders' and suppliers' plan exchange that maintains facilities where the bidding documents may be examined by all contractors, subcontractors, and suppliers. If such facilities are available in the district's area, the district should consider sending bidding documents to them to ensure maximum exposure for its project. The district also should consider sending bidding documents to any minority contractors' organizations in its locality.

Section 906 – Revisions to Construction Documents During Bidding

Addenda are written or graphic documents issued to clarify, revise, add to, or delete information in the original bidding documents or in previous addenda. Addenda should be issued with sufficient time to allow contractors to incorporate the revisions into their bid.

All addenda must be submitted to OSPI on microfilm.

Section 907 – Bid Opening Procedures

Opening bid proposals without OSPI authorization (Form D-8) may result in the forfeiture of state funds dedicated for the project.

Bid forms shall provide for a separate bid amount for each of the applicable OSPI funding categories, i.e., new construction, modernization, as well as non-matchable costs such as off-site improvements. Alternate bids must also be structured to separate bid costs into these categories.

Before the advertised deadline, all bids must be submitted in writing on the proposal form. The district should develop an accountable and standard method of recording the receipt of bids and subcontractor lists. It is suggested that a date/time stamp clock be used to record the time that bids are received.
All bids (including all bid prices, alternative bids, unit prices, time for completion, acknowledgments of receipt of addenda, and any other similar information required on the bid form) must be read aloud in public on the date and time of bid opening at the place named in the notice.

The requirement that a list of subcontractors be submitted within one hour of receiving the bids may be accomplished in a variety of ways. Two common strategies may be either of the following:

1. The district may receive and open bids immediately and disqualify any bids whose subcontractors' list was not properly submitted.

2. The district may receive and record bids until the bid deadline, but keep the subcontractors' list sealed and stored in a secure place until a later time and/or date.

As bids are opened and read aloud, the district should acknowledge the proper receipt of the subcontractors' list to determine if a bid is responsive. All opened bids should be tabulated and made available for public inspection as soon as possible. Any discrepancies or irregularities noted during the reading should be recorded on the bid tabulation form or in the minutes of the bid opening.

Section 908 – Evaluation of Bids

When bids have been opened, a tabulation of bids received, including complete names and addresses of all bidders, all base bids, alternate bids, unit prices, acknowledgment of receipt of addenda, and acknowledgment of receipt of bid guarantees shall be prepared and certified by both the architect/engineer and the district.

Qualification

The bidder must be qualified by experience, financing, and equipment to do the work called for in the drawings and project manual. The bidder must be a registered contractor in the state of Washington in accordance with state law and such registration must be valid at the time of bidding and be maintained valid throughout the course of the work.

The district may request from the bidder satisfactory evidence of financial resources, construction experience, and organization available for performance of the proposed contract.

Disqualification

The school board may determine, at its discretion, that a bidder is not responsible and reject the bid. The district should use caution in disqualifying a bidder (especially on the basis of an unsatisfactory past performance record). Previous failures or other problems in the past are not, in themselves, proof of inability to perform new work. The burden of proof of inability to perform would fall upon the district should the bidder take the case to court. Disqualification of bidders on public works projects is not a step to be taken lightly; competent legal counsel is required to justify such action.

Section 909 – Award of Construction Contracts

Upon consideration of the bids, the amount of funds available for construction of the project, and the qualifications of the bidders, the district's board of directors shall adopt a recommendation for awarding a contract or contracts and shall itemize any alternate bids to be accepted.

Upon receiving written authorization from OSPI (Form D-10), the district may prepare and award contracts for construction of the project.

Construction contracts shall be prepared in the form stipulated in the project manual and should be reviewed and approved by the district's legal counsel.

Immediately following the awarding of contract(s), the district shall forward one signed or certified copy of each construction contract to OSPI.

Exhibit 9A – Retainage Forms

FORM SPI D-162	ESCROW AGREEMENT
FORM SPI D-163	RETAINAGE PERCENTAGE ON PUBLIC WORKS CONTRACTS
FORM SPI D-164	RETAINAGE BOND
FORM SPI D-165	RETAINAGE BOND CERTIFICATE

STATE BOARD OF EDUCATION
Office of Superintendent of Public Instruction
Old Capitol Building, PO BOX 47200
Olympia, WA 98504-7200
(360) 753-6734 TTY (360) 664-3631

ESCROW AGREEMENT

To:

____
BANK OR TRUST COMPANY

____
BRANCH

____
STREET

____
CITY/STATE/ZIP CODE

Bank Account No. ______________________________

School District/State Board of Education Contract No. ______________________________

Project Name ______________________________

The undersigned, ______________________________, hereinafter referred to as the contractor, has directed ______________________ School District and the State Board of Education, hereinafter referred to as the agency, to deliver to you its warrants or checks which shall be payable to you and the contractor jointly. Such warrants or checks are to be held and disposed of by you in accordance with the following instructions and upon the terms and conditions hereinafter set forth.

INSTRUCTIONS

1. The agency shall deliver to you from time to time checks or warrants payable jointly to you and the contractor. You are hereby authorized by the contractor to endorse in the contractor's name any such check or warrant so that you may receive the proceeds thereof and invest the same. The power of endorsement hereby granted to you by the contractor shall be deemed a power coupled with an interest and shall be irrevocable during the term of this escrow. Although you may be a payee named in such warrants or checks as shall be delivered to you, your duties and responsibilities with respect to the same shall be only those duties and responsibilities which a depository bank would have pursuant to Article 4 of the Uniform Commercial Code of the State of Washington for an item deposited with it for collection as of the date such check or warrant shall be used by you to purchase, as directed by the contractor, bonds or other securities chosen by the contractor and approved by you and the school district. For the purpose of each such purchase, you may follow the last written direction received by you from the contractor, provided such direction otherwise conforms with the restrictions on investments recited herein. Attached is a list of such bonds or other securities approved by the agency. No further approval is necessary if any of these bonds or securities, except stocks, may be selected by the contractor, subject to express written approval of you and the school district. Purchase of such bonds or other securities shall be in a form which shall allow you alone to reconvert such bonds or other securities into money if you are required to do so by the fiscal officer for the Superintendent of Public Instruction as provided in paragraph 4 of this escrow agreement.

   The investments selected by the contractor, approved by the school district, and purchased by you must mature on or prior to the date set for the completion of the contract, including extensions thereof or 45 days following the final acceptance of said improvement or work.

2. When and as interest on the securities held by you pursuant to this agreement accrues and is paid, you shall collect such interest and forward it to the contractor at the address designated below unless with your written consent you are otherwise directed in writing by the contractor.

3. You are not authorized to deliver to the contractor all or any part of the securities held by you pursuant to this agreement (or any monies derived from the sale of such securities or the negotiation of the agency's warrants or checks) except in accordance with written instructions from the fiscal officer for the Superintendent of Public Instruction. The fiscal officer for the Superintendent of Public Instruction shall inform you and keep you informed in writing of the name of the person or persons with authority to give you such written instructions. Compliance with such instructions shall relieve you of any further liability related thereto. The estimated completion date on the contract underlying this escrow agreement is ________________. Upon request by you, the school district shall advise you in writing of any change in estimated completion date. If the estimated completion date is changed, you are authorized to reinvest the monies held hereunder in accordance with the new estimated completion date.

4. In the event the fiscal officer for the Superintendent of Public Instruction orders you to do so in writing, and notwithstanding any other provisions of this agreement, you shall, within 35 days of receipt of such order, reconvert into money the securities held by you pursuant to this agreement and return such money together with any other monies, including accrued interest on such securities, held by you hereunder, to the State Board of Education, PO BOX 47200, Olympia, WA 98504-7200.

5. The contractor agrees to pay you as compensation for your services hereunder as follows:

Payment of all fees shall be the sole responsibility of the contractor and shall not be deducted from any property placed with you pursuant to this agreement until and unless the fiscal officer for the Superintendent of Public Instruction directs the release to the contractor of the securities and monies held hereunder whereupon you shall be granted a first lien upon such property released and shall be entitled to reimburse yourself from such property for the entire amount of your fees and any unanticipated amounts which might be owing as provided for herein. In the event that you are made a part to any litigation with respect to the property held by you hereunder, or in the event that the conditions of this escrow are not promptly fulfilled or that you are required to render any services not provided for in these instructions, or that there is any assignment of the interests of this escrow or any modification hereof, you shall be entitled to reasonable compensation for such extraordinary services from the contractor and reimbursement from the contractor for all costs and expenses, including attorney fees occasioned by such default, delay, controversy, or litigation.

6. Should you at any time and for any reason desire to be relieved of your obligations as escrow holder hereunder, you shall give written notice to the school district, the State Board of Education, and the contractor. The school district and contractor shall, within 20 days of the receipt of such notice, jointly appoint a successor escrow holder and instruct you to deliver all securities and funds hereunder to said successor. If you are not notified of the appointment of the successor escrow holder within 20 days, you may return the subject matter hereof to the State Board of Education, PO BOX 47200, Olympia, WA 98504-7200, and upon so doing, it absolves you from all further charges and obligations in connection with this escrow.

7. At no cost to the ____________________________ School District, you shall submit monthly statements to the district showing deposits, balance, interest, and payments.

8. This agreement shall not be binding until executed by the contractor and the agency and accepted by you.

9. This instrument contains the entire agreement between you, the contractor, and the agency with respect to this escrow and you are not a party to nor bound by any instrument or agreement other than this; you shall not be required to take notice or demand, nor required to take any action whatever except as herein expressly provided; you shall not be liable for any loss or damage not caused by your own negligence or willful misconduct.

10. The foregoing provisions shall be binding upon the assigns, successors, personal representatives, and heirs of the parties hereto.

The undersigned have read and hereby approve the instructions as given governing the administration of this escrow and do hereby execute this agreement on this ________ day of ______________, 20____.

Contractor	**Agency**
______________________ SIGNATURE	______________________ SIGNATURE
______________________ TITLE	______________________ TITLE
______________________ ADDRESS	

The above escrow instructions received and accepted this _____ day of ____________, 20____.

______________________ BANK OR TRUST COMPANY	______________________ AUTHORIZED SIGNATURE

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BONDS AND SECURITIES ACCEPTABLE BY THE STATE AGENCY

1. Bills, certificates, notes, or bonds of the United States.
2. Other obligations of the United States or its agencies.
3. Obligations of any corporation wholly owned by the government of the United States.
4. Indebtedness of the Federal National Mortgage Association.
5. Time deposits in commercial banks.

Designate below the type of investments selected:

STATE BOARD OF EDUCATION
Office of Superintendent of Public Instruction
Old Capitol Building, PO BOX 47200
Olympia, WA 98504-7200
(360) 753-6734 TTY (360) 664-3631

RETAINAGE PERCENTAGE

on Public Works Contracts

School District ______________________ Project Number ______________

Contractor ______________________

Chapter 60.28 RCW as amended by Chapter 101, Laws of 1994 Regular Session allows each prime contractor on a public works contract the following options concerning the amount reserved as retainage from moneys earned by the contractor.

School district officials shall require each prime contractor to complete the following form for the above public works project. STATE FUNDS WILL NOT BE DISTRIBUTED UNTIL THIS FORM IS ON FILE WITH THE SUPERINTENDENT OF PUBLIC INSTRUCTION.

Contractor's Option

☐ Retained in a non-interest bearing fund by the public body until 45 days following the final acceptance of said improvement or work as completed.

☐ Deposited by the public body in an interest bearing account or escrow account in a bank, mutual savings bank, or savings and loan association designated by the contractor (Form SPI D-162), not subject to withdrawal until after the final acceptance of said improvement or work as completed, or until agreed to by both parties; PROVIDED, that interest on such account shall be paid to the contractor.

☐ The contractor may provide a bond in place of retainage in an amount equal to 5 percent of the contract plus change orders. The minimum requirements for the bond are: Must be signed by a surety registered with the Washington State Insurance Commissioner and be on the currently authorized insurance list published by the Washington State Insurance Commissioner. Additional requirements as established by district board policy may be applied. Release of said bond will occur only after documents listed in WAC 180-29-165 and release letters from the Department of Revenue, Employment Security Department, and Department of Labor and Industries are on file with the Superintendent of Public Instruction.

SIGNATURE ______________ DATE ______________

TITLE ______________

NAME OF FIRM ______________

ADDRESS ______________

RETAINAGE BOND

Bond No. ______________

The "Contractor" or "Principal" is:

Name and address

The "Owner" or "Obligee" is:

The "Surety" is:

Name and address

The "Contract" is dated:

For:

KNOW ALL BY THESE PRESENTS:

That the contractor, a corporation organized and existing under the laws of the State of ______________ and authorized to do business in the State of Washington as principal and surety, a corporation organized and existing under the laws of the State of ______________ and authorized and admitted to transact business in the State of Washington as surety, are jointly and severally held and bound unto ______________ School District No._____ as Obligee for the use and benefit of claimants defined below as beneficiaries of the trust fund created by chapter 60.28 RCW, in the amount of:

(Check one of the following)

☐ 5 percent of the contract sum, including any increases due to change orders, quantities of work, new items of work, or other additions as the owner may pay under the contract, any and all future progress payments and 5 percent of any and all increases in the contract sum.

or

☐ ____ Dollars ($____________), which is a fixed portion of the retained funds, as described below,

for the payment whereof principal and surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents. If the second option is chosen, any balance of the retained funds will continue to be withheld, and retainage will be withheld from any future progress payments or increases in the contract sum to the extent that the fixed portion is exceeded unless this retainage bond is amended or replaced.

WHEREAS, the principal entered into a contract with the owner in accordance with drawings, specifications, and other contract documents, which contract is by reference made a part of this retainage bond;

AND WHEREAS, the contract and chapter 60.28 RCW require the owner to reserve from the monies earned by the principal on estimates during the progress of the improvement or work a sum not to exceed 5 percent ("retained funds");

AND WHEREAS, principal has requested under RCW 60.28.011(6) to submit a bond for all or a portion of the retained funds, and the owner is required by the statute to accept a satisfactory bond in lieu of the retained funds unless it can demonstrate good cause for refusing it:

AND WHEREAS, it is the intent of the principal, the surety, and the owner that this retainage bond and any proceeds from it are subject to all claims and liens in the same manner and priority as set forth for retained percentages in chapter 60.28 RCW;

NOW THEREFORE, the condition of this obligation is that, if there are no valid claims by any person or entity arising under the contract pursuant to chapter 60.28 RCW, and no payment due from the principal to the state of Washington with respect to taxes imposed pursuant to Title 82 RCW or payments pursuant to chapter 50.42 RCW, then this obligation shall be void; otherwise, it shall remain in full force and effect, subject, however, to the following conditions:

1. The principal and surety hereby jointly and severally agree among themselves and with the owner that every person or entity making a valid claim on the retained fund pursuant to chapter 60.28 RCW ("claimant") who has not been paid in full before the expiration of a period of 45 days after the completion of all contract work may sue on this retainage bond for the use and benefit of the claimant, prosecute the suit to final judgment for the sum justly due the claimant, if any, and have execution on this retainage bond, all in accordance with and to the extent permissible under chapter 60.28 RCW. The owner shall not be liable for the payment of any costs or expenses, including attorneys' fees, of any such suit.

2. No suit or action shall be commenced under this retainage bond by any claimant:

   (a) Unless the claimant has complied with the requirements of chapter 60.28 RCW, and

   (b) Other than in a state court of competent jurisdiction in and for the county in which the project is situated, and not elsewhere.

3. The amount of this retainage bond shall be reduced by and to the extent of any payment or payments properly made under it.

SIGNED AND SEALED this _______ day of _________________, 2____

PRINCIPAL

____

Authorized Signature

____

Title

Approved

____________________ SCHOOL DISTRICT

NO.______

____

Authorized Signature

Dated______________________________.

SURETY

____

Authorized Signature

____

By: Its Attorney in Fact

Name and Title

Name of Local Office or Agent

____

Address of Local Office or Agent

FORM SPI D-164 (Rev. 4/00)

STATE BOARD OF EDUCATION
Office of Superintendent of Public Instruction
Old Capitol Building, PO BOX 47200
Olympia, WA 98504-7200
(360) 753-6734 TTY (360) 664-3631

RETAINAGE BOND CERTIFICATE

School District Name ______________________________

School District Address ______________________________

____

Project Number ______________________________

Project Name ______________________________

CERTIFICATION

Under RCW 60.28.010(4), the general contractor has submitted a bond in lieu of retainage. The public body is required to accept the bond, providing it is in a form acceptable to the public body. In this regard the State Board of Education adopted WAC 180-29-147.

☐ As per WAC 180-29-147 (4) and (5), the school district has reviewed the bond. I hereby certify the bond is signed by a surety registered with the Washington State Insurance Commissioner, is on the currently authorized insurance list published by the Washington State Insurance Commissioner, and meets any additional requirements as established by district board policy.

____
AUTHORIZED SIGNATURE

____
TITLE

Participants

Legend

■ Primary Responsibility for Action

□ Participation in Action

	Local					State							City/County								Consultants																			
Activity	Citizens Students	SD Board of Directors	SD Superintendent	SD Staff	SD Hazardous Materials Designated Person	State Board of Education	Superintendent of Public Instruction	Public Disclosure Commission	Energy Office	Department of Ecology	Labor and Industries	Electrical Inspector	Planning Officials	Building Officials	Fire Marshal	Public Works	Health Officials	Electrical Inspector	County Auditor	County Treasurer	Program Management	Financial Advisor	Bond Underwriter	Bond Counsel	Legal Counsel	County Prosecutor	Real Estate Broker	Geotechnical Engineer	School Facility Planner	Land Surveyor	Educational Consultant	Construction Manager	Architect Engineer	Value Engineering Team	Constructability Review	Building Commissioning	Contractors	Testing Laboratories	Other	Remarks
Bidding, Evaluation and Award (Chapter 9)																																								
63 Advertise for Bids			■	□																	□				□	□							□							
64 Open Bids	□	■	□	□																	□				□	□							□							
65 Evaluate Bids and Bidders			■	□																	□				□	□							□							
66 Recommendation for Award		■	□																		□																			
67 Application to Enter into Contracts (Form D-9)			■	□																	□																□			
68 Authorization to Sign Contracts (Form D-10)							■																																	
69 Award Construction Contracts			■	□																	□				□	□														

BEST COPY AVAILABLE

Chapter 10

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Section 1001 – Construction/Project Management Participants

The construction process involves many participants in the management of the construction contract. Project management is the application of management practices necessary to oversee the scope, cost, time, and quality of a project. It is a coordinated team process which includes monitoring a constantly evolving project, documenting project correspondence and field changes, reviewing contractor performance, testing and inspecting, and administering project schedule and costs.

The team members and the roles they traditionally perform are as follows:

Contractor

- Procures the necessary materials, equipment, and components.
- Employs and supervises the necessary personnel and/or subcontractors.
- Manages construction activities to meet the terms of the contract.
- Coordinates the work of all trades.
- Coordinates the review and inspection by governmental agencies.
- Administers project costs, invoices, and subcontractor disbursements.
- Documents contract modifications and site conditions.
- Obtains permits and field inspections and pays incidental fees as specified by the contract.
- Issues warranties and guarantees as required by the contract.

Architect/Engineer

- Interprets technical standards and requirements of the drawings and specifications.
- Reviews contract submittals, shop drawings, samples, schedules, and correspondence.
- Assesses project quality and compliance with construction documents.
- Reviews contract progress and schedule.
- Reviews and confirms contractor's invoices and costs.
- Processes and documents required contract modifications.
- Assesses project status for substantial completion.
- Certifies project completion and fulfillment of contract documents.

District's Representative/Construction Manager

- Provides access to and availability of the project site.
- Contracts for special inspections and required testing.
- Reviews contractor's use of the site and protection of the district's property.
- Responds to field questions and authorizes action.
- Approves payments for construction invoices and incidental permits and fees.
- Monitors maintenance contracts and inspections during warranty periods.

Traditional design contracts provide neither full-time administration of the construction contract nor exhaustive and continuous on-site inspection. Depending on the project complexity, the nature of the architectural/engineering contract, and the capability of the district to manage the construction contract, a district may want to consider additional construction management services.

Section 1002 – Documents Submitted Prior to Start of Construction

The following properly executed documents shall be delivered to the district for acceptance prior to the start of construction:

1. Agreement between contractor and school district.
2. Required performance bonds and required surety.
3. Certificates of insurance.
4. Prevailing wage rate statement.
5. Retainage bond or escrow agreement.

Other documents which are normally required prior to start of construction but absolutely required prior to submittal of the first request for payment include:

1. Lists of subcontractors and suppliers.
2. Schedule of values.
3. Schedule of construction activities.
4. Proof of issuance of building permit.
5. Product ordering time schedule.
6. Proof of insurance as specified in the contract.

Section 1003 – Cash Flow Schedule

When the schedule of values and the schedule of construction activities have been received, the district's representative/construction manager, the architect/engineer, and the contractor should meet and establish a cash flow schedule that estimates the moneys required, on a monthly basis, throughout the scheduled progress of the construction work.

When the cash flow schedule has been established, forward one copy to OSPI.

All local and any other funds dedicated to the project must be expended fully on the project prior to payment of any state funds toward the project

Section 1004–Construction Scheduling

Most construction contracts, unless specified otherwise, require the contractor to submit a construction schedule by which to chart project progress. This schedule reflects the sequence of construction activities, the delivery of important equipment and supplies, and the dates of all events and milestones leading to completion.

Unless a project is relatively simple, the schedule format that demonstrates the most useful information is the critical path method (CPM) analysis. This method identifies and illustrates project activities and identifies those which are critical to the timely, sequential completion of the work. Other important concerns are:

- Project phasing.
- Site access limitations.
- District abatement or concurrent construction.
- Shop drawing review of long-lead items.
- Dates for major equipment review.
- Delivery of district-furnished equipment and materials.
- Building permits and inspections.

Section 1005 – Quality Management

Quality management is the process which assures that a project achieves given standards and meets the expectations of those involved. There are three primary components of quality management:

1. Goals which establish expectations and a commitment to pursue these goals.
2. Standards that specify performance criteria, special tests, and reporting procedures.
3. Quality control review that executes technical examination, testing, and/or analysis for compliance.

Two types of testing procedures are typically required on construction projects: those required by local building and life safety codes and those performed on behalf of the district. Inspections and tests are typically conducted on the following:

- Earthwork compaction for bearing capacity.
- Imported soil for quality compliance.
- Concrete material and reinforcing strength and placement.
- Mortar and grout strength testing.
- Roofing materials and installation.
- Structural steel materials, fabrication, and erection.
- Partition framing, fire-rated wall assemblies, and insulation.
- Mechanical system air flow balancing.
- Fire sprinkler system piping.
- Waste and water systems.
- Fire alarm system.

Only special inspections and testing required by Chapter 17 of the 1994 Uniform Building Code (UBC) are considered matchable.

When utilizing special testing procedures, the district should be certain that all tests are observed by a representative of the general contractor, appropriate subcontractors, district's representatives, architect/engineers, and building officials.

Section 1006 – Preconstruction Conference

Prior to the start of construction, it is advisable to have a preconstruction conference to include the following:

1. District representative/construction manager (if applicable).
2. Architect and engineers.
3. General contractor.
4. Major subcontractors (primarily earthwork, mechanical, and electrical).
5. Building and other officials (if project size warrants).

The purpose of the conference is to introduce all members of the construction group and to provide the following:

1. List of contractors, subcontractors, and suppliers, including names of contact persons, addresses, telephone and fax numbers.
2. Project construction time schedule.
3. Critical work sequencing.
4. Major equipment deliveries and priorities.
5. Designation of responsibilities for coordination.
6. Procedures and processing of:
    - Field decisions.
    - Proposal request.
    - Submittals and shop drawings.
    - Change orders.
    - Applications for payments and timeframe requirements for processing.
7. Adequacy of distribution of construction documents.
8. Procedures for maintaining record documents.
9. Use of premises.
10. Construction facilities, controls, etc.
11. Temporary utilities.
12. Safety and first aid procedures.
13. Security procedures.
14. Housekeeping procedures.

Minutes of the meeting and all clarifications and decisions that provide contract direction should be documented and distributed to all concerned parties.

Section 1007 – Job Progress Meetings

Regularly scheduled on-site construction progress meetings are held to resolve issues as they occur, provide on-site direction, and confirm project status. Attendees normally include:

1. District's representative/construction manager (if required).
2. Architect.
3. Engineering consultants during their phase of the work.
4. General contractor.
5. Major subcontractors (mechanical, electrical).

Typical items for review are:

1. Minutes of previous meeting.
2. Status of construction progress and projected schedule.
3. Problems that impede the construction progress.
4. Measures to resolve construction issues.
5. Status of contractor submittals and requests for information.
6. Requests for district-provided materials and information.
7. Requests for site access and utilization.
8. Contract provisions and conformance to quality standards.
9. Status of contract change orders.

Minutes of the meetings, all clarifications, and all decisions that affect contract direction should be documented and distributed to all concerned parties.

Section 1008 – Progress Payments and Retainage

As established by contract, the payment process typically consists of payments to the contractor based on monthly invoices submitted to the architect/engineer for work completed and materials provided. These payment requests also reflect the status of contract cost, disbursements to date, contract retainage withheld, and the balance of work to be completed. The architect/engineer reviews the payment request and determines that:

- Costs reflect the schedule of values.
- Invoices accurately reflect completed work and status of construction.
- Adequate retainage is withheld (if applicable).
- Calculations are correct.

After approval of the payment request, the architect/engineer forwards the application and a recommendation to the district for payment.

One provision of the construction contract is retainage—the ability to withhold funds until final completion and acceptance of the project. The district is required to either retain obligated funds in the amount of 5 percent of the construction contract (excluding state and local sales tax) or to accept a retainage bond of equal value.

At the beginning of a construction contract, the general contractor has the option to choose the form of retainage. If the method is to retain obligated funds, funds may be held either by the district if there is mutual consent or placed in an escrow account with an approved bank or trust company for investment in authorized bonds or securities or a savings account, with interest on such investment accruing to the contractor. All retained funds shall be held until the district has completed the process described in Section 1016. The funds are applicable for those projects which are either cooperatively financed by the district and the state or totally financed by the school district.

On state-assisted projects, detailed instructions on payment procedures are available from OSPI. These instructions are furnished for the information and guidance of district officials, design professionals, and contractors. Further assistance may be obtained by contacting the School Facilities disbursements officer, Budget and School Business Services, OSPI.

Section 1009 – Payment Procedures — State Participation

For state-assisted projects, design and construction funds shall be disbursed in the following manner:

1. Initial payment shall be made from district local funds on all claims submitted by the architect/engineer and contractors until such time as the total amount of the local funds obligated by the district for its share of the cost of the project has been expended (see Exhibits 10A and 10B) (excluding equipment purchases and matchable inspection and testing claims [see Exhibits 10A and 10B]). These payments are documented on the payment certification and reimbursement claim form supported by copies of invoices (see Exhibit 10C).
2. Subsequent payments may be made from state funds on all further claims submitted by the architect/engineer and contractors. If cash flow permits, the district may continue paying the state portion and periodically request reimbursement of matchable expenditures.
3. Matchable inspection and testing claims and furniture and equipment purchases are handled separately from the construction and architect/engineer fees. The district submits matchable inspection and testing claims on SPI Form 1290 (see Exhibit 10D) and furniture and equipment claims on SPI Form B-751 (see Exhibit 10E). When a district has expended its share of the cost, the state share may be reimbursed to the maximum of the state's total share. Final expenditures for matchable inspection and testing or equipment that do not reach the total allowance will be recalculated and result in a reduction in local and state share of participation.

4. Additive change orders associated with architectural/engineering services are not state assisted and therefore are fully charged to the district. The district must pay the change order portion plus applicable sales tax when a change order charge appears on a contractor's estimate (invoice). This is shown on the face of the state of Washington Invoice F-717A (see Exhibit 10A) under "Amount of Current Estimate Paid by School District (if any)." The state will pay the retainage portion. Payments made for additive change orders and for any increased architectural/engineering fees are reported as the project progresses.

   The additive change order costs will increase the district's share of the project's cost by the amount of the change plus applicable sales tax. The additional architect/engineer charges (if any) for change orders will also increase the district's share of the project. In all cases, the district will pay all change order costs prior to the receipt of any state assistance.

Modifications to the contract are called change orders. The change order process (established by the contract) documents changes in cost, schedule, or responsibility that occur due to:

- Corrections or clarifications to contract documents.
- Modified project requirements.
- Unforeseen site conditions.

Section 1010 – Change Orders—Field Orders

The following are the procedures in a typical change order process:

1. Required changes to the contract are addressed to the contractor in the form of a field directive. These directives reference the affected contract documents and detail necessary changes.
2. The contractor assesses the field directive for its impact on construction, on the cost of labor and materials, and on potential delays to project completion. Then a contract proposal is submitted to the architect/engineer.
3. The architect/engineer and the district representative review the proposal and its impacts on cost and project schedule. If the contract cost and schedule are unaffected, work proceeds from the field directive. If the proposal modifies either cost or schedule, the architect/engineer prepares a change order to authorize this contract modification. The authorization for the change order requires the signatures of the architect/engineer, the contractor, and the district.

Project modifications by change order that alter project area or contract cost may not be eligible for state assistance. State assistance may be reduced to reflect any project decreases.

Section 1011 – Construction Claims and Dispute Resolution

A district may claim damages resulting from a contractor's failure to complete the construction of a facility by the time specified in the contract. The cost of delay may be predetermined and defined in the liquidated damages provision of the bid documents. Otherwise, delay claims may be based on the actual costs to the district of not being able to use the facility on time. Also, damages may be claimed by the district if the contractor fails to achieve the standards of the contract.

The contractor may also present claims to the district for costs that could not be foreseen during the bid period. Causes for such costs might be:

- Errors and omissions in the contract documents.
- Delays or changes caused by the local government permitting and inspection process.
- Changes originated by the district or the architect/engineer.
- Natural disasters (Acts of God).

Claims by the contractor may include direct labor and material costs, overhead, and profit. The contractor will typically include the average daily overhead and/or administrative costs directly attributable to the job when claiming damages relating to project delays. Those costs may include charges for the project superintendent, job site trailer rental, and telephone and utility bills. The costs of the contractor's main office cannot be claimed unless they are directly attributable to this particular project. Claims for a reasonable amount of weather delay (e.g., National Weather Service average number of snow days) are usually granted for time extension only, not for additional cost.

A dispute arises when one party makes a claim which is not accepted by the other. Arbitration and mediation are two methods of resolving disputes. Partnering is a preemptive way to avoid construction disputes. If claims or disputes cannot be settled in one of these ways, they may have to be decided in court. Litigation is always more costly and time-consuming.

Section 1012 – Warranties

It is typical for the contractor to warrant the entire building for a period of one year after the date of substantial completion. The district should be aware of expiration dates of the warranty of the general contractor and the warranties of manufacturers of equipment and materials since these warranties may have different duration and expiration dates. Repair or replacement of any deficient material, equipment, or workmanship during the warranty period is the responsibility of the contractor or manufacturer at no cost to the district. Copies of all warranties should be included in all operations and maintenance manuals provided to the district by the contractor.

Warranties specified in the contract documents may be difficult to understand, particularly as they apply to mechanical and electrical components. Warranties for such equipment often contain explicit statements that require that certain conditions (such as regular servicing and maintenance by qualified persons) be met for the warranty to remain in effect.

School district and on-site personnel need to be aware of these conditions in order to avoid attempting maintenance or repairs that could void the warranty.

Servicing and maintenance of many items or equipment required by the warranties may be beyond the capability of the school facility maintenance staff. A district may wish to extend the warranty periods for some components or even consider separate contracts for skilled servicing and maintenance of the more complex components of the new facility.

Section 1013 – Substantial Completion

The date of substantial completion is an important and definable point in project development. It is the day when a district may begin to occupy a designated portion of the project or the entire building. It is also the point when the contractor begins to turn control of the facility over to the district. The date of substantial completion may initiate both the warranty period and the transfer of insurance coverage from the contractor to the district. Determining substantial completion follows a process that involves the contractor, the architect/engineer, and the district.

The process begins when the contractor determines that a project or a designated portion of the project is substantially complete. Then the architect/engineer is notified and given a list of items to confirm as substantially complete. The architect/engineer inspects the work to confirm substantial completion and then prepares a certificate of substantial completion which shall:

1. Establish the date of substantial completion.
2. State the responsibilities of the district and the contractor for maintenance, utilities, and insurance.
3. List the items to be completed or corrected.
4. Fix the time within which the contractor shall complete or correct the items listed.
5. Establish the time when builder's risk insurance should be transferred to the district.

Section 1014 – Systems Start-Up, Testing and Training

Today's buildings include a number of systems that must be started and tested to ensure that they perform at the specified level. While this process is the contractor's responsibility, the district may want to involve the architect/engineer to verify the equipment's operation and test results.

The district may want to consider initiating a procedure called building systems commissioning (if not required) before final acceptance when the building is transferred to the control of the district's maintenance and operations personnel. Some of the major issues addressed during building commissioning are occupancy and use, performance of systems, indoor air quality, and operation and maintenance.

District administrators and maintenance and custodial personnel also should receive instruction on the proper operation and maintenance of these complex systems. Contract documents should require the contractor, subcontractors, and suppliers to provide this training along with appropriate manuals, materials, tools, and demonstrations. The district should be aware that this training occurs near the end of construction, which is often during the summer months when district staff may be scheduled for vacation.

Section 1015 – Final Completion and Acceptance

Final completion occurs when the construction work is concluded and the contractor corrects all deficiencies. Certification that all project requirements have been fulfilled in accordance with the contract is then submitted to the architect/engineer.

The architect/engineer, the contractor, and the district's representative then conduct a final inspection to confirm the final completion status according to the terms of the contract. If everything is in order, the architect/engineer requests the specified project closeout information from the contractor. The following items should be included:

1. Project record documents or as-built drawings and specifications.
2. Operation and maintenance manuals, including product and material data.
3. Guarantees, warranties, and bonds.
4. Keys and keying schedule.
5. Spare parts and maintenance materials (when required).
6. Evidence of compliance with requirements of governing authorities, including:
   - Certificates of inspection from local code officials.
   - Certificate of occupancy from local building department officials.
   - Affidavits of wages paid.
7. Certificate of insurance of products and completed operations.
8. Contractor's affidavit of payment of debts, claims, and taxes from the Department of Revenue, Employment Security Department, and Department of Labor and Industries.

9. Contractor's release of liens.
10. Separate releases of liens for subcontractors, suppliers, and others with lien rights against district property together with a list of those parties.
11. Notice of surety's consent to the release of final payment.

In addition, the architect/engineer determines the final balance due by reconciling the contractor's final invoice with the following items:

1. Original contract.
2. Change orders.
3. Disbursements and credit of cash allowances if included in contract. (Note: cash allowances are nonmatchable costs on projects receiving state funds.)
4. Settlements resulting from dispute resolution, defaults of contract terms, and lien reconciliation.
5. Adjusted contract sum.
6. Previous payments.
7. Retainage withheld (if applicable).

The architect/engineer shall complete and submit to OSPI an area analysis of the completed project.

When final completion is confirmed in writing by the architect/engineer, the district then officially accepts the work by adoption of a school board resolution stating that the work has been completed satisfactorily. If more than one prime contractor participated in the project, a resolution must be adopted for each contractor.

Section 1016 – Final Payment

Final payment on the contract cannot be released until 45 days after acceptance by the district's board of directors. Final payment may include the release of retainage or authorized release of bonds in lieu of retainage.

1. At the beginning of the 45-day period, the district must submit the following documents to OSPI:
   a. Architect/engineer letter to the district's board of directors certifying final completion of the work. (A separate letter is required for each contractor.)
   b. Copies of the adopted school board resolution(s) for each individual contract officially accepting the work.
   c. The architect/engineer's certification for each individual contract on a properly executed invoice voucher (see Exhibit 10A) stating the final amount due and payable to the contractor Form SPI F-717A, Billing for Retainage.
   d. The architect/engineer submittal of an area analysis of the completed project.

2. During the 45-day period, the district must submit the following documents to OSPI:
   a. A certification by the authorized agent of the district that all affidavits of wages paid are on file in compliance with RCW 39.12.040.
   b. An occupancy permit by the local building official.
3. At the end of the 45-day period, the district must submit the following documentation to OSPI:
   a. A certification by the district that no liens have been filed or a certified list of all valid liens together with one copy of each lien that has been filed.
   b. One copy of all correspondence relative to any foreclosure actions taken upon a lien and/or release of lien.

Upon acceptance of the project, the district must notify the Department of Revenue, Department of Labor and Industries, and Employment Security Department per chapter 60.28 RCW, RCW 50.24.130, and RCW 51.12.050. Each agency will perform an audit and provide a release of the state's lien upon the project. One copy of each release is to be provided to OSPI prior to release of retainage.

OSPI must authorize the release of any final payments, including retained percentage and/or retainage bond, to any person.

OSPI will forward a Form D-12 (permission to retainage) to the district upon receipt of the above documents. The D-12 will detail the amount to be retained by the district under WAC 180-29-170. The district may release only the permitted amount plus interest and forward a copy of the bank letter to OSPI.

Even when arbitration or mediation is used to resolve disputes, certification of fully paid taxes and premiums that are due those state agencies is still required.

Section 1017 – Occupancy

During occupancy of the completed facility, the district's staff for the facility should be oriented to its functions and to its operating and maintenance requirements. Administrative, maintenance, and custodial personnel who are responsible for day-to-day operation of the physical plant benefit from three items delivered to the district by the contractor during final completion and closeout:

1. Operation and Maintenance Manuals
   These manuals should contain all technical data necessary to clean, operate, maintain, and repair the facility's equipment, components, and materials. The district should receive sufficient copies of the manuals for district and on-site facility personnel. One copy should be kept with the district's permanent records.

2. Record Drawings
   These drawings are commonly known as as-builts and are made from the contractor's daily records. They are far more accurate than the architect/engineer's contract documents. The contractor's recorded changes are reviewed or even redrawn by the architect/engineer. The district should receive a reproducible set of as-built drawings. The original set should be kept with the permanent district records. Copies can be made to distribute to district and on-site facility personnel. These documents are extremely important when repairing or remodeling the building.
3. Parts, Materials, and Supplies
   The contract documents often call for extra parts and materials to be provided to the district upon completion of the project. This may include extra floor and ceiling tiles and supplies of paint in the colors used on the project. If possible, these materials should remain at the facility where they are most needed.

Section 1018 – Staff and Community Orientation Program

A staff and community orientation program is an important aspect of opening a new school facility. Orientation should be conducted for the administrative staff, faculty, maintenance and operating personnel, students, and members of the community to facilitate adaptation to the facility. The educational capability of the facility should be demonstrated so that it supports the educational program in the most efficient and effective way. The two main categories of such orientation programs are user orientation and public information.

User orientation programs usually are initiated by school administrators. Although user participation in the design process has gained acceptance, participation by the architect/engineer and educational consultants in the initial occupancy orientation is a relatively new but highly desirable concept. School administrators, faculty, and staff can adjust to the new facility more easily with professional help during the transition period. The potential of many design features may be more fully realized when the users understand the intent, purpose, and ideal use of the facility.

Public information programs are normally less detailed than user orientations. They are designed to promote familiarity with how the school facility supports the educational program rather than an in-depth understanding of how the facility functions. Such programs are important because they show how the tax dollars are being spent and provide an illustration of how the district is meeting the educational expectations of the community.

Section 1019 – Postoccupancy Evaluation

It is a good practice to look at the results of the planning, design, and construction efforts after the school facility has been completed and used for some time. This examination is known as postoccupancy evaluation.

It is fairly common to evaluate a facility during or near the end of the first year and then at intervals through the next three to five years. The information obtained through a postoccupancy evaluation can provide valuable information for future building programs and should include:

1. An evaluation of the planning process, identifying changes to improve the planning of future facility projects.
2. An evaluation of how well the building responds to the original educational specifications and the present education program.
3. An identification of building features that should or should not be repeated in future projects.
4. A plan for corrective measures for this school building
5. An identification of maintenance and operation problems that should be eliminated from future facility designs.

The individuals that will use the facility should participate in the postoccupancy evaluation. This includes administrators; teachers; staff; students; aides; and custodial, secretarial, and food service personnel. Other essential participants should include the architect/engineer, district administrative personnel, and community members. The experiences, perceptions, and expectations of each evaluator are different. Their input is vital to achieve a total and balanced evaluation of the facility.

Exhibit 10A – Forms

SPI 1288	Payment Certification and Reimbursement Claim
SPI 1298	Invoice Voucher for Construction Management Application for Payment on Contract
SPI F718	Invoice Voucher For Architect Application For Payment On Contract
SPI F-717A	Invoice Voucher (Contractor) Application For Payment On Contract
SPI 751	Certification Of School District Payments For Furniture And/Or Equipment
SPI 1290	Inspection Testing Summary

STATE BOARD OF EDUCATION
Office of Superintendent of Public Instruction
Old Capitol Building
PO BOX 47200
Olympia, WA 98504-7200

PAYMENT CERTIFICATION AND REIMBURSEMENT CLAIM

SCHOOL DISTRICT

ADDRESS

PROJECT NO

NAME OF PROJECT

CERTIFICATION NO

Warrant Date	Payee Name	Warrant Number	Warrant Amount	Total All Payments	State Board Use

I hereby certify that the above amounts have been paid by
to the vendors indicated. I further certify under penalty of perjury that the items and totals listed herein are proper charges to the State of Washington and services have been rendered without discrimination as to race, creed, color, national origin, sex, or age.

Signature of Authorized Agent

Date

SAMPLE

STATE BOARD OF EDUCATION USE ONLY

Total All Payments	(1)
Less Change Orders and Change in Sales Tax	(2)
Less Architect Reimbursables and Over D-10	(3)
Less School District Share (From D-10)	
Less Previous Reimbursements	(4)
Reimbursement Due District	

Fund	Appr	Proj	Sub Prog	Object	Sub O		Amount
						Total	

Payee #

Project #

Cert #

Approved

Verified by

Voucher #

FORM SPI 1288 fm (Rev. 3/00)

Page 1

BEST COPY AVAILABLE

STATE BOARD OF EDUCATION
Office of Superintendent of Public Instruction
Old Capitol Building
PO BOX 47200
Olympia WA 98504-7200
(360) 753-6734 TTY (360) 664-3631

INVOICE VOUCHER FOR CONSTRUCTION MANAGEMENT
APPLICATION FOR PAYMENT ON CONTRACT

This invoice voucher form shall be used for filing of claims for payment from state funds allocated to school districts for construction of school plant facilities. Submit original and one copy to the State Board of Education.

CONSTRUCTION MANAGEMENT COMPANY NAME

ADDRESS

CITY/STATE/ZIP

PROJECT NAME

SCHOOL DISTRICT (NAME NUMBER COUNTY)

ESTIMATE	AGENCY PROJECT NO	INVOICE DATE

For Period to

District PO Number

CERTIFICATE

Total amount due and payable to
construction management company on current estimate $

I hereby certify under penalty of perjury that the total amount claimed above is a proper charge for materials, merchandise, or services furnished to the above-named school district on the above-identified project in accordance with estimate of work completed as shown on the reverse side of this invoice voucher.

PAYEE

By

SIGNATURE OF REPRESENTATIVE

SAMPLE

TITLE

We hereby certify under penalty of perjury that the total amount claimed above is correct; that the material, merchandise, or services have been received and are properly chargeable to the above-identified project; and that the sum of $ is due and payable from the state funds as set forth below:

Total Amount Due Current Estimate	$
Amount of Current Estimate Paid by School District (if any)	$
Amount of Current Estimate to be Paid by State	$

SCHOOL DISTRICT

By

AUTHORIZED AGENT DATE

AGENCY USE ONLY

Payee No.

Project No.

Estimate No.

APPROVED FOR PAYMENT

VOUCHER NO

ACCOUNT CODE					AMOUNT	
Fund	Approp.	Program	Object	Sub.		Net Invoice
				TOTAL		

FORM SPI 1498 (4/00)

ESTIMATE OF WORK COMPLETED

PROJECT NAME

SCHOOL DISTRICT (NAME NUMBER COUNTY)

ESTIMATE	AGENCY PROJECT NO	INVOICE DATE

For Period to

DISTRICT PURCHASE ORDER NUMBER

1. CONTRACTED AMOUNT FOR CONSTRUCTION MANAGEMENT SERVICES $
(should be the amount shown on D-9 and D-10)
OTHER SERVICES (define below) $
REIMBURSABLE EXPENSE (define below) $
CHANGES TO CONTRACT $
TOTAL $
TOTAL CONTRACTED SERVICES $

2. TOTAL VALUE SERVICES EARNED TO DATE:
CONTRACT FEE $
OTHER SERVICES $
REIMBURSABLE EXPENSE $
CHANGES TO CONTRACT $
TOTAL $

SAMPLE

3. TOTAL AMOUNT PREVIOUSLY BILLED $

4. TOTAL AMOUNT CURRENTLY DUE (Total 2-Total 3) $

5. TOTAL BALANCE OF CONTRACT (Total 1-Total 2) $

OTHER SERVICES (this is where you define any services like building commissioning not in contract or changes to contract):

REIMBURSIBLES (this is where you can define reimbursibles):

STATE BOARD OF EDUCATION
Office of Superintendent of Public Instruction
Old Capitol Building
PO BOX 47200
Olympia, WA 98504-7200

INVOICE VOUCHER FOR ARCHITECT
APPLICATION FOR PAYMENT ON CONTRACT

ARCHITECT NAME

ADDRESS

CITY/STATE/ZIP

PROJECT NAME

SCHOOL DISTRICT (NAME, NUMBER, COUNTY)

ESTIMATE   AGENCY PROJECT NO   INVOICE DATE

For Period   to

CERTIFICATE

Total Amount Due and Payable Architect on Current Estimate $

I hereby certify under penalty of perjury that the total amount claimed above is a proper charge for materials, merchandise, or services furnished to the above-named school district on the above-identified project in accordance with estimate of work completed as shown on the reverse side of this invoice voucher.

PAYEE

By

SIGNATURE OF REPRESENTATIVE   DATE

SAMPLE

We hereby certify under penalty of perjury that the total amount claimed above is correct; that the material, merchandise, or services have been received and are properly chargeable to the above-identified project; and that the sum of $____________________ is due and payable from state funds as set forth below:

Total Amount Due Current Estimate $

Amount of Current Estimate Paid by School District (if any) $

Amount of Current Estimate to be Paid by State $

SCHOOL DISTRICT

By

AUTHORIZED AGENT   DATE

FOR OSPI USE

Payee #

Project #

Est. #

Inv. Date

VERIFIED

APPROVED FOR PAYMENT

VOUCHER NO.

WARRANT NO.

ACCOUNT CODE					AMOUNT	
Fund	Approp.	Program	Object	Sub.		Net Invoice
				TOTAL		

ESTIMATE OF WORK COMPLETED

PROJECT NAME

SCHOOL DISTRICT (NAME, NUMBER, COUNTY)

ESTIMATE AGENCY PROJECT NO. INVOICE DATE

For Period to

1. BASIC FEE for services in accordance with provisions of contract with the school district (should equal C8, D10). $

OTHER SERVICES (defined below) $

REIMBURSABLE expense $

CHANGE ORDER fees $

TOTAL $

TOTAL COST OF PROJECT $

2. TOTAL VALUE SERVICES RENDERED:

BASIC FEE $

OTHER SERVICES $

REIMBURSABLE expense $

CHANGE ORDER fees $

TOTAL $

SAMPLE

3. TOTAL AMOUNT PREVIOUS PAYMENTS $

4. TOTAL NET AMOUNT CURRENTLY DUE $

5. TOTAL BALANCE VALUE $

OTHER SERVICES:

NOTES:

STATE BOARD OF EDUCATION
Office of Superintendent of Public Instruction
Old Capitol Building
PO BOX 47200
Olympia, WA 98504-7200

INVOICE VOUCHER (CONTRACTOR)
APPLICATION FOR PAYMENT ON CONTRACT

(Estimate of work completed detail on reverse side.)

This invoice voucher shall be used for filing of claims for payment from state funds allocated to school districts for construction of school plant facilities.

CONTRACTOR NAME	AGENCY PROJECT NO	SCHOOL DISTRICT
	ESTIMATE NO For Period to	
	INVOICE DATE	CONTRACTOR'S EXCISE TAX REGISTRATION NO

Total Amount Due and Payable Contractor on Current Estimate $

AGENCY USE ONLY

CONTRACTOR'S CERTIFICATE

I hereby certify under penalty of perjury that the total amount claimed above is a proper charge for materials, merchandise, or services furnished to the above-named school district on the above-identified project in accordance with estimate of work completed shown on the reverse side of this invoice voucher. I further certify that prevailing wages have been paid in accordance with the prefiled statement or statements of intent to pay prevailing wages on file with the public agency.

SAMPLE

FIRM NAME

By
SIGNATURE
Title

SCHOOL DISTRICT'S CERTIFICATE

We hereby certify under penalty of perjury that the total amount claimed above is correct; that the materials, merchandise, or services have been received and are properly chargeable to the above-identified project; and that the sum of $ ______________________ is due and payable from state funds as set forth below:

Total Amount Due Current Estimate	$
Amount of Current Estimate Paid by School District (if any)	$
AMOUNT OF CURRENT ESTIMATE TO BE PAID BY STATE	$

SCHOOL DISTRICT
By
SIGNATURE OF AUTHORIZED AGENT *
Title

* As designated by Board of Directors' Resolution

FOR AGENCY USE ONLY

ACCOUNT CODE Fund Approp Program SProgram Object Sub	AMOUNT Net Invoice	PAYEE NO PROJECT NO ESTIMATE NO INVOICE DATE VOUCHER NO
Checked and approved for payment: Total		

FORM SPI F-717A fm (Rev. 3/00)

ESTIMATE OF WORK COMPLETED

ORIGINAL CONTRACT ITEMS

NO.	DESCRIPTION	ORIGINAL CONTRACT VALUE	VALUE PREVIOUS ESTIMATES	VALUE CURRENT ESTIMATE	VALUE CONTRACT BALANCE
		$	$	$	$
	TOTALS	$	$	$	$

CHANGE ORDERS

SAMPLE

1. Amount of Total Contract	$	$	$	$
% of =				
2. SST % of =				
3. Total Contract, Including Sales Tax (Line 1 plus Line 2)		$	$	$
4. Retained Percentage * (_________% of Line 1)			+	=
5. Previous Payments (Line 3 less Line 4)		$		
6. Amount Due Current Estimate (Line 3 less Line 4)			$	
7. Contract Balance (Line 3 plus Line 4)				$

8. Designate one:
Retain to remain in a fund with the Public Body.
Retainage to be placed in escrow in accordance with escrow agreement.
Retainage bond on file.

FORM SPI F-717A.fm (Rev. 3/00)

STATE BOARD OF EDUCATION
Office of Superintendent of Public Instruction
Old Capitol Building
PO BOX 47200
Olympia, WA 98504-7200

CERTIFICATION OF SCHOOL DISTRICT PAYMENTS FOR FURNITURE AND/OR EQUIPMENT

OSPI USE ONLY

Furniture and/or instructional equipment approved as certified (approved as amended) by:

Director, School Facilities and Organization

Date Approved

SCHOOL DISTRICT

SCHOOL DISTRICT NO.

ADDRESS

PROJECT NUMBER

NAME OF PROJECT

CERTIFICATION NO.

FINAL ☐ Yes ☐ No

DATE	WARRANT NUMBER	VENDOR	FURNITURE AND EQUIPMENT		INVOICE AMOUNT	SALES TAX	FREIGHT CHARGES	DISCOUNTS	TOTAL*	AGENCY USE
			QUANTITY	DESCRIPTION						

SAMPLE

* The total column should reflect the amount claimed for the item or items purchased, not necessarily the actual amount of the warrant.

Total for Pages: 1 ________ 4 ________
2 ________ 5 ________
3 ________ 6 ________

I, the undersigned, do hereby certify that the furniture and/or equipment as listed above was purchased by the ________________ for the ________________ No. ____________ and paid by school district warrants as indicated. I further certify that the said items do not include any expendable items or short-life items such as books, instructional supplies, reference materials, brooms, mops, garbage cans, nor were any part of the items purchased for replacement purposes.

Authorized Representative of School District

Date

STATE BOARD OF EDUCATION USE ONLY

Equipment to Date (not to exceed maximum on D-10)	
School District Share From D-10	
Less Previous Reimbursements	
Net Due School District	

Payee No. ________
Project No. ________
Cert. No. ________
Voucher No.

Fund	Appr	Prog	S Prog	Object	Sub O	Amount

Total Payment

Verified By

Approved

FORM SPI B 751 fm (Rev. 3/00)

Page 1 of

STATE BOARD OF EDUCATION
Office of Superintendent of Public Instruction
Old Capitol Building
PO BOX 47200
Olympia, WA 98504-7200

INSPECTION TESTING SUMMARY

PAYMENT CERTIFICATION AND REIMBURSEMENT CLAIM

SCHOOL DISTRICT

ADDRESS

PROJECT NO

PROJECT DESCRIPTION

CERTIFICATION NO

D-10 OR D-10(1) DATE

FINAL ☐ Yes ☐ No

The following tests were certified as part of the Form D-7 submission. Only costs associated with those tests specified in the Uniform Building Code (UBC) under the section dealing with special inspection and conducted after issuance of Form D-10 or Form D-10(1) will be considered for matching during construction. Only tests marked with an asterisk will be considered matchable.

1.
2.
3.
4.
5.
6.
7.
8.
9.

Inspection/Testing Detail (attach invoices for each)

MATCHABLE INSP./TESTS	VENDOR NAME AND ADDRESS	WARRANT DATE AND NUMBER	WARRANT AMOUNT	OSPI ONLY MATCHABLE AMOUNT ~~(see below)~~**

SAMPLE

I hereby certify that the above amounts have been paid by School District No. to the vendors indicated. I further certify under penalty of perjury that the items and totals listed herein are proper charges to the State of Washington and services have been rendered without discrimination as to race, creed, color, national origin, sex, or age.

Signature of Authorized Agent Date

** Only the cost of the actual test (per UBC). Overtime, mileage, clerical, etc. are not matchable.

Page 1 Total

Page 2 Total

Grand Total

Approved (OSPI)

STATE BOARD OF EDUCATION USE ONLY

Inspection/Testing to Date (not to exceed maximum on D-10)

Less School District Share from D-10

Less Previous Reimbursement

Net Due School District

Fund	Appr	Prog	S Prog	Object	Sub O	Amount

Payee No.

Project No.

Cert. No.

Voucher No.

Total Payment

Verified by

Approved by

Inspection/Testing Detail (attach invoices for each)

MATCHABLE INSP./TESTS	VENDOR NAME AND ADDRESS	WARRANT DATE AND NUMBER	WARRANT AMOUNT	OSPI ONLY MATCHABLE AMOUNT**
		Page 2 Total		

SAMPLE

** Only the cost of the actual test (per UBC).
Overtime, mileage, clerical, etc., are not matchable.

Participants

Legend

■ Primary Responsibility for Action

▨ Participation in Action

	Local					State							City/County								Consultants																			
Activity	Citizens/Students	SD Board of Directors	SD Superintendent	SD Staff	SD Hazardous Materials Designated Person	State Board of Education	Superintendent of Public Instruction	Public Disclosure Commission	Energy Office	Department of Ecology	Labor and Industries	Electrical Inspector	Planning Officials	Building Officials	Fire Marshal	Public Works	Health Officials	Electrical Inspector	County Auditor	County Treasurer	Program Management	Financial Advisor	Bond Underwriter	Bond Counsel	Legal Counsel	County Prosecutor	Real Estate Broker	Geotechnical Engineer	School Facility Planner	Land Surveyor	Educational Consultant	Construction Manager	Architect/Engineer	Value Engineering Team	Constructability Review	Building Commissioning	Contractors	Testing Laboratories	Other	**Remarks**
Construction/Closeout/Acceptance (Chapter 10)																																								
70. Organize Project Management Team			■	▨																	▨											▨	▨							
71. Contract for Spec. Inspection/Testing			■	▨																	▨											▨	▨					▨		
72. Documents Required Prior to Construction				▨																	▨											■	▨				▨			
73. Construction & Cash Flow Schedules				▨																	▨											■	▨				▨			
74. Building and Other Permits				▨										▨							▨											▨					■			
75. Preconstruction Conference				▨	▨																▨											■	▨				▨	▨		
76. Prevailing Wage Statements											▨																					▨					■			
77. Affirmative Action Compliance				▨																					▨	▨						▨					■			
78. Insurance/Bond Review				■																					▨	▨													▨	(Insurance Carrier)
79. Construction Activities																																								
A. Construction Management				■																	▨											■	▨				▨	▨		
B. Periodic Observation of Work				▨	▨									▨	▨	▨	▨	▨														▨	■				▨	▨		
C. Job Progress Meetings				▨																	▨											■	▨				▨			
80. Progress Payments & Retainage				■			▨													▨	▨											▨	▨				▨			
81. Change Orders/Field Orders				▨			▨							▨																		■	▨				▨			
82. Substantial Completion			▨	▨																												■	▨				▨			
83. Final Completion and Acceptance																																								
A. Contractor Certification																																					■			
B. Final Inspection				▨	▨									▨	▨	▨	▨	▨			▨											■	▨				▨			
C. List of Unfinished Work (if any)				▨																												▨	■							
D. Re-Inspection (as required)				▨	▨									▨	▨	▨	▨	▨														■	▨				▨			
E. Closeout Submittals				▨																												▨	▨				■			
F. Final Adjustment of Accounts				▨			▨														▨											▨	▨				■			
84. Building Commissioning				▨																												▨	▨				▨		■	
85. Final Application for Payment				▨			▨														▨											▨	▨				■			
86. Final Certificate for Payment				▨			▨														▨											■	▨							
87. Design Team Certifications																					▨											▨	■							
88. School Board Resolution of Completion		■	▨																																					
89. Final Payment (Less Retainage)			■				▨													▨	▨																			If Applies
90. Application for Release-Retainage (Form D-11)			■	▨			▨																		▨	▨														If Applies
91. Release of Retainage (Form D-12)							■																																	If Applies
92. Payment of Retainage			■	▨																▨																				If Applies
93. Occupancy and Use																																								
A. Orientation	▨	▨	■	▨																	▨										▨	▨	▨				▨			
B. User's Manual				▨																												▨	▨				■			
94. Adjust Hazardous Material Management Plan				▨	■																																			Within 90 Days of #90
95. 1-year Warranty Inspection				▨																												▨	■				▨			
96. Post-Occupancy Evaluation	▨	▨	■	▨																	▨												▨							

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Chapter 11

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Section 1101 – Responsibilities for Facility Management

After construction of a school facility, the district is responsible for the operation and maintenance of this facility. This chapter provides information about those responsibilities, state regulations affecting maintenance and modernization, and guidelines for facility management.

Responsibilities of School District

Unless otherwise specifically directed by law, a district is responsible for causing all school buildings to be properly heated, lighted, ventilated, and kept in a clean and sanitary condition and for maintaining, repairing, furnishing, and insuring these buildings.

The annual school performance report requires information regarding the use and condition of the school building or buildings. The report shall be made available to the local community and electorate served by the school.

Need for Planned Facility Management

All materials, structures and equipment, regardless of the type of service they render, are subject to damage and deterioration. The district must be constantly concerned with the safety, reliability, economy, and efficiency of their school facilities. An orderly, consistent effort toward planned facility management is the best method any district can adopt to satisfy those concerns.

Planned facility management as discussed herein includes three distinct and separate activities.

1. Maintenance is the work necessary to realize the originally anticipated useful life of a fixed asset. Maintenance includes periodic or occasional inspection; adjustment, lubrication, and cleaning (nonjanitorial) of equipment; replacement of parts; painting; resurfacing; and other actions to ensure continuing service and to prevent breakdown. This periodic care, repair, or replacement can be identified according to content and frequency for every component in a school facility. Maintenance may prolong the service life of the property or equipment but does not add to the asset's value.
2. Operations encompass those activities related to a building's normal performance of the functions for which it is used. This includes the scheduling of equipment operation (lighting, HVAC, hot water, kitchen, and other miscellaneous equipment). The costs of utilities, janitorial services, window cleaning, rodent and pest control, and waste management are generally included within the scope of operations and are not maintenance.
3. Capital improvements are changes to the current design condition of the buildings and their grounds through acquisition, alteration, or modifications that add to the physical value of the facility. Moneys used for capital improvements should not be obtained from maintenance and operation budgets. They should be obtained from capital construction sources such as levies or bond issues.

Potential Benefits

Some of the potential benefits of planned facility management include:

- Decrease in maintenance expenses.
- Minimal failure of building systems.
- Decrease in expenditures for labor and materials.
- Reduction in operating costs.
- Protection of capital investment.
- Increase in productivity.
- More cost-effective ordering and stocking of maintenance materials.
- Increase in safety and security.

Section 1102 – State Regulations and Policies for Modernization and Maintenance

The State Board of Education implemented the following policies with respect to state funding for modernizing and maintaining school facilities.

Eligibility of School Facility for Modernization

School facilities built prior to January 1, 1993, are ineligible for state financial assistance for modernization where the principal purpose of the modernization is to restore building systems and subsystems that have deteriorated due to deferred maintenance.

New school facilities (including additions) built and accepted by the district's board of directors prior to January 1, 1993, shall be eligible for state financial assistance for modernization after the facility has been occupied for 20 years.

New schools facilities (including additions) built and accepted by the district's board of directors after January 1, 1993, may be eligible for state financial assistance for modernization after the facility has been constructed and occupied within the previous 30 years or if the facility has received state assistance for modernization within the previous 30 years.

Reporting Deferred Maintenance

Districts are required to report in the study and survey the need and the estimated capital costs to restore to design specifications the major systems and subsystems in schools that have deteriorated due to deferred maintenance.

The estimated cost of modernization shall not include the estimated capital costs associated with restoring building systems or subsystems due to deterioration as determined in the study and survey to be caused by deferred maintenance.

Maintenance Expenditures (Reinvestment)

State assistance for modernization of school facilities built and accepted by the district's board of directors after January 1, 1993, shall be conditioned to an annual maintenance expenditure (or reinvestment) rule. Table 11.1 illustrates the various maintenance reinvestment rates and their impact on state assistance. To be eligible for the maximum state assistance for modernization, a district must have a maintenance reinvestment rate of at least 2 percent over the last 15 years of the facility.

New school facilities (including additions) built and accepted by the district's board of directors after January 1, 1993, shall not be eligible for new-in-lieu replacement per WAC 180-33-042 if total expenditures for maintenance of plans and equipment for 15 years prior to applying for new-in-lieu replacement was below 2 percent of the replacement value.

Table 11.1 Maintenance Expenditures for Modernization Assistance

APPLICATION OF THE 2 PERCENT RULE TO A $1,000,000 MODERNIZATION PROJECT (1)

Maintenance Reinvestment Rate (2) (% BRV)	Reduction of Allowable Cost (3) (%)	Allowable Cost ($)	Reduction in Allowable Cost (4) ($)
2% or more	0	1,000,000	0
1.5–2.0%	7.5	925,000	75,000
1.0–1.5%	15.0	850,000	150,000
0.5–1.0%	22.5	775,000	225,000
0.0–0.5% (5)	100.0	0	1,000,000

A post-1992 school facility will be ineligible for the new-in-lieu option if the reinvestment level is less than 2 percent of the building's replacement value over the most recent 15 years.

Notes:

1. This rule applies to post-1992 schools when they are 30 years or older.
2. Building replacement value (BRV) for any given year is the area cost allowance from July of the previous year times the gross square footage.
3. The allowable cost is the maximum amount of the project cost that the state will share. It is equal to the area cost allowance times the approved square footage.
4. Except for the last category (0.0–0.5 percent BRV), the additional district cost is this amount times the district's matching ratio. No state match is available for this category.
5. At this reinvestment level, the building would be ineligible for state assistance for modernization.

Section 1103 – Planned Facility Management

Planned facility management is a methodology for a district to comply with the state's regulations that require school facilities to be maintained. The integration of maintenance, operations, and capital management will improve operating efficiencies, control the rate of deterioration, and preserve the functional and financial value of the facilities. The ideal situation is the achievement of a steady state of performance where the reinvestment rate is equal to the deterioration rate and a facility neither gains nor loses its functional or financial value.

Specific methods to implement a successful planned facility management program will vary from district to district. Even though there is no uniform program to follow, there are certain elements common to most programs. The following is a list of these elements and some suggested guidelines:

District Policy Statement

A district policy statement should be adopted by the board of directors to establish certain expectations regarding maintenance and operations of the district's facilities along with an acceptable level of condition. This policy should be stated in general terms, allowing the specifics of implementation to be developed by the district's professional administrative staff. Ultimately, it is the responsibility of the district's superintendent to implement the policy, budget the necessary financial resources, and set the standards of performance.

Management Plan

Under the direction of the district's superintendent, a management plan should be developed outlining specific objectives and strategies for complying with the district's policy statement. Depending upon the size and resources of the district, a variety of participants may be involved in the development and implementation of the plan. These participants may include administrators, custodians, teachers, contract service consultants, local code officials, and even students.

Inventory

State Board of Education rules require that an inventory and building condition assessment be completed with the study and survey prior to approval of a district's application for state assistance.

A thorough inventory of the district's facilities is essential and should include the following:

- Real properties and buildings owned or used.
- Building systems, components, and materials.
- Services, e.g., utilities, fuel.
- Equipment, furniture, machines, vehicles.

- Warranties and service agreements.
- Technical manuals and construction documents.
- Responsibilities of parties involved.

Building Condition Assessment

Each building and system included in the inventory should be evaluated for useful life, energy consumption, history, code compliance, and performance standards. This condition assessment process identifies and prioritizes the backlog of building deficiencies that should be addressed by the management plan.

Future Requirements

Within reason, the projections of the future requirements for facilities should be incorporated into the management plan.

Management Controls

Management controls consist of a process to ensure that implementation procedures conform to policy goals. To effectively execute management controls, the following elements are important:

- **Procedural plan**—a strategy for implementing districtwide maintenance goals and policy and the prioritization of activities.
- **Manpower allocation and scheduling**—the task of defining both skill and staff load requirements.
- **Record and reporting system**—the ability to identify and schedule required tasks and document work completed, historical record of service requirements, and equipment failure.
- **Funding and financial management**—a financial plan for maintenance and operation costs and a budget for planned capital renovation of utility systems (and ultimately structures) within the framework of daily maintenance processes to extend the useful building life.

Evaluation of Performance

The ultimate measure of maintenance management is the condition of the structure and its systems from year to year. The district should have a procedure to assess the condition of its facilities with respect to the maintenance objectives it has established.

Appendix

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Appendix B Addresses A-5

Appendix A – Glossary

Area Cost Allowance
The area cost allowance is used in calculating state financial assistance for school construction. It is determined and projected annually by OSPI no later than August 31 of each year. The maximum area cost allowance is computed using the construction cost index averages reported by the E.H. Boeckh Company for six cities in Washington State and for Portland, Oregon, and is projected for each of the 12 months starting from the first day of September. The specific area cost allowance for a project is determined by the cost allowance in effect for the month that construction bids are opened.

Arbitrage
The difference between interest paid on debt and the interest earned on the proceeds derived from that debt.

Arbitration
Arbitration is the voluntary submission of a construction dispute to an impartial third party or person for final judgment. Arbitration can be done through an informal agreement between the two parties, or the parties may adopt the rules set forth by one of a number of groups such as the American Arbitration Association. (See Appendix B for address.)

Stipulations calling for arbitration in the case of a dispute may be included in the original contract or as a rider. If not included in the contract, the parties may agree to arbitration when a dispute arises.

Arbitrators are usually engineers, contractors, or architects who are familiar with the concepts in question and who know prevailing industry practices. Their decision is based on interpretation of the contract documents and current construction practices. The term "binding arbitration" means both parties are bound by the arbitrator's decision.

Building Commissioning
A disciplined procedure designed to provide a building owner with a completed building operating as designed and specified. The intent is to furnish a building owner with a high degree of assurance that equipment and systems are installed in the prescribed manner and will operate according to the performance guidelines.

Under the commissioning process, a single source (individual agent or organization) has contractual responsibility to test, verify, and report on the operational condition, capability and performance of the building's major operating systems (heating, ventilating, air conditioning [HVAC]; plumbing; fire protection; energy management; and electrical systems) and their related ancillary equipment (e.g., control systems) and to provide effective training for the building operating and maintenance personnel.

Constructability

1. The optimum use of construction knowledge and experience in planning, engineering, procurement, and field operations to achieve overall objectives (Constructability Task Force, Construction Industry Institute, University of Texas).
2. The ease with which a project can be built, including the clarity, consistency, and completeness of the contract documents for bidding, administration, and interpretation to achieve overall project objectives *(Standards of CM Services and Practice,* Construction Management Association of America).

Typically, constructability addresses the following:

- Feasibility of schedule: total duration and timing of key events relative to weather, market factors, logic of work sequence, etc.
- Work site accessibility: travel time, ease of approach, availability of laydown areas, conflicts with ongoing owner activities.
- Conflicts among disciplines: structural, mechanical, electrical, etc.
- Suitability of work divisions for the current subcontractor market.
- Choice of construction methods, materials, and equipment.
- Procurement procedures: form of contract, expediting long-lead items, availability of extra bid-sets for subcontractors, etc.
- Specifications and general conditions.

The following are some general principles for improving a project's constructability:

- Develop a construction-driven schedule and coordinate with the school calendar.
- Simplify the design and use standard details, materials, and dimensions.
- Survey the market for labor and materials. Special circumstances may make the traditional approach less economical.
- Check the construction documents for conflicts between disciplines, e.g., consistency of pipe and conduit runs between sheets, structural interference with ducts, pipes and conduits, and other elements; schedule and space conflicts between trades.
- Check the packaging of the specifications to ensure that subcontractors can bid competitively.
- Allow adequate access to the site and areas for the contractor to mobilize, store materials, assemble components, etc.

Construction Management

The process in which a person or consultant is employed by the school district to oversee and administer the construction project. Usually the construction manager will not perform any of the construction work, but acts as the district's agent in evaluating bids and awarding contracts for all or various parts of the project.

Liquidated Damages

Provisions for liquidated damages are inserted in the contract to discourage late completion and specify a sum to be imposed for each day of delay in achieving occupancy. Liquidated damages should be based on estimates of actual costs that would be incurred by the school district if the project is not completed on time.

MasterFormat
Construction Specification Institute's uniform system for indexing specifications and filing technical literature. This system is based on a construction trade-oriented format.

Mediation
Mediation is a way to settle construction disputes without necessarily enforcing the terms of the contract. The mediator promotes discussion between the two sides, but it does not have the power to impose a solution. The mediator is mainly a facilitator of discussion between the parties and not necessarily someone knowledgeable with construction. Mediation is preferred as a way to resolve conflicts in their early stages before the parties become adversaries.

If mediation is attempted, both parties should agree beforehand that no records of the mediation be kept and that what occurs during the mediation is not intended to affect subsequent arbitration or litigation should such actions become necessary.

Partnering
Partnering is a management system designed to solve problems before they become disputes requiring resolution.

Contracts between parties define rights and obligations and allocate risks associated with a project. Contracts do not define the working relationships between the participants and the sharing of risks to get the job done.

While the contract establishes the legal relationships, the partnering process attempts to establish working relationships among the parties (stakeholders) through a mutually developed, formal strategy of commitment and communication. It attempts to create an environment where trust and teamwork prevent disputes, foster a cooperative bond to everyone's benefit, and facilitate the completion of a successful project.

Project Management
The process in which a person or consultant is employed by the school district to oversee and administer the coordination of the design and planning stages as well as the construction project.

UniFormat
A model for organizing building costs based on a building systems orientation (e.g., superstructure, interior construction) originally developed by the General Services Administration and the American Institute of Architects. The system sets up a baseline for automated cost control and estimating procedures oriented for design control.

Appendix B – Addresses

American Arbitration Association
140 West 51st Street
New York, NY 10020
(212) 484-3233 Fax: (212) 765-4874

Department of Health
Community Environmental Health Programs
Building 2, Thurston Airdustrial Center
PO Box 47826
Olympia, WA 98504-7826
(360) 586-4496 Fax: (360) 586-5529

Dodge SCAN
100 West Harrison Plaza
Seattle, WA 98109
1-800-GET-SCAN or (206) 284-3811

Environmental Review Section
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600
(360) 493-9260 Fax: (360) 438-7537

KCDA Purchasing Cooperative
King County Directors' Association
18639 80th Avenue South
PO Box 5550
Kent, WA 98064-5550
(425) 251-8115 Fax: (425) 251-8437

Equity
Office of Superintendent of Public Instruction
PO Box 47200
Olympia, WA 98504-7200
(360) 753-2593

Washington State Energy Office
206 General Administration Building
PO Box 4102
Olympia, WA 98504-4101
(360) 902-7198 Fax: (360) 753-2848

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Cell Phone (425) 503-5424

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Eastern Regional Office

Spokane, WA

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Phone (509) 456-2866
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